

JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A Hagood Avenue
Charleston, South Carolina 29403-5107
and

THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Office of Environmental Quality Control
Water Quality Certification and Wetlands Programs Section
2600 Bull Street
Columbia, South Carolina 29201

REGULATORY DIVISION
Refer to: P/N # 2003-1Z-123-C

12 DECEMBER 2003

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), the South Carolina Coastal Zone Management Act (48-39-10 et seq.), and the S.C. Construction in Navigable Waters Permit Program (R. 19-450, et seq., 1976 S.C. Code of Laws, as amended), an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by the

DEPARTMENT OF THE NAVY
NAVAL WEAPONS STATION CHARLESTON
2316 RED BANK ROAD, STE 100
GOOSE CREEK, SOUTH CAROLINA 29445-8601

for a permit to place fill material in waters of the U.S. to renovate eight (8) pond embankments located along tributaries of

GOOSE CREEK AND THE COOPER RIVER

at the Naval Weapons Station, Berkeley County, South Carolina.

In order to give all interested parties an opportunity to express their views

NOTICE

is hereby given that written statements regarding the proposed work will be received by both of the above mentioned offices until

12 O'CLOCK NOON, MONDAY, 12 JANUARY 2004

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed work consists of renovating eight earthen embankments. In detail, the applicant proposes to raise and/or stabilize the embankments, replace/upgrade water control structures, and construct auxiliary spillways. In addition, the project involves breaching two embankments (West Tenant Pond and Upper Tenant Pond) so that a single pond is created from three smaller ponds. For a complete description of the project, see sheets i - vi (Description of Work). Approximately 6.3 acres of wetlands will be impacted as a result of the proposed work (3.1 acres resulting from excavation and fill; 3.2 acres resulting from flooding). The purpose of the work is to prevent recurring erosion and to improve water level management for wildlife and drainage.

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Department of the Navy

NOTE: Plans depicting the work described in this notice are available and will be provided, upon receipt of a written request, to anyone that is interested in obtaining a copy of the plans for the specific project. The request must identify the project of interest by public notice number and a self-addressed stamped envelope must also be provided for mailing the drawings to you. Your request for drawings should be addressed to the

**U.S. Army Corps of Engineers
ATTN: REGULATORY DIVISION
69A Hagood Avenue
Charleston, South Carolina 29403-5107**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions of the Coastal Zone Management Program (15 CFR 930). The District Engineer will not process this application to a conclusion until such certifications are received. This activity may also require evaluation for compliance with the S.C. Construction in Navigable Waters Permit Program. State review, permitting and certification is conducted by the S.C. Department of Health and Environmental Control. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review. Persons wishing to comment or object to State certification or the navigable waters permit must submit all comments in writing to the S.C. Department of Health and Environmental Control at the above address within thirty (30) days of the date of this notice.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact approximately 0.1 acres of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. In addition, the proposed work will also impact approximately 6.2 acres of wetlands and open water habitat located upstream from estuarine substrates and emergent wetlands utilized by various life stages of species comprising the red drum, shrimp, and snapper-grouper management complexes. Our initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

The District Engineer has consulted the most recently available information and has determined that the project will have no effect on any Federally endangered, threatened, or proposed species and will not result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any listed or proposed endangered or threatened species or designated or proposed critical habitat may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended).

The District Engineer has consulted the latest published version of the National Register of Historic Places for the presence or absence of registered properties, or properties listed as being eligible for inclusion therein, and this worksite is not included as a registered property or property listed as being eligible for inclusion in the Register. Consultation of the National Register constitutes the extent of cultural resource investigations by the District Engineer, and he is otherwise unaware of the presence of such resources. Presently unknown archaeological, scientific, prehistorical, or historical data may be lost or destroyed by the work to be

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Department of the Navy

accomplished under the requested permit.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps of Engineers cannot undertake to adjudicate rival claims.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

If there are any questions concerning this public notice, please contact me at 843-329-8044 or toll free at 1-866-329-8187.



Larry Hanford
Project Manager
Regulatory Division
U.S. Army Corps of Engineers

DESCRIPTION OF WORK

The purpose of the project is to renovate and improve ^{eight (8)} ~~seven (7)~~ embankments on the Naval Weapons Station in Berkeley County, South Carolina. The embankments and ponds to be renovated are referred to as Lower Tenant, Middle Tenant, West, ~~and~~ Upper Tenant, Dutes, Brown, Logan, and George. A map has been included to show their locations (sheet 2 of drawings).

Sediment and erosion control practices and procedures will be implemented as needed throughout the project area.

All seeding will be in accordance with NRCS specifications for critical area planting.

Descriptive views will reference "when looking downstream".

Work Statement for NAVAL WEAPONS STATION

Lower Tenant Embankment

The tidal influence of Goose Creek has eroded the downstream slope of this embankment. The renovations at this site will stabilize the downstream slope and increase the ability of the embankment to withstand these forces.

- All debris and organic matter on the existing embankment slopes will be removed and disposed of in a designated area on the Station property.
- The top width will be widened from 14 feet to 28 feet for a distance of 575 feet. The new embankment will then taper back to a 14 ft top width and tie into the existing embankment all within a distance of 25 ft.
- The top of the embankment will be raised to a settled elevation 8.3 feet.
- The embankment will be extended along the existing road on the left side of Lower Tenant to a 12 ft top width for a distance of 670 ft.
- A wooden dock and two (2) metal culvert pipes will be removed from this site.
- Muck will be excavated at all locations of new earthfill within the existing pond area and at the new water control structure (wcs).
- The downstream slope will be reshaped to a 3:1 (H:V) and protected with riprap over geotextile. A riprap apron will be constructed along the downstream toe as a structural measure for slope stability. The riprap and geotextile will cover a distance of 475 ft. The final upstream slope will be 2:1 (H:V).
- A new water control structure will be installed, as shown. The new 66" full round riser and 48" corrugated metal pipe (cmp) will be in addition to the existing concrete block wcs. The concrete block wcs will not be altered in any way.

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- The new wcs and inlet channel excavation will be constructed to facilitate wildlife habitat management.
- A ramp and sump pump area will be constructed as shown.

Lower Tenant Auxiliary Spillway

Currently this pond system has no auxiliary spillway. This design will utilize several low areas to direct the excess flow from a 25yr-24hr storm back into Goose Creek.

- A temporary construction road will be cleared and constructed on the high ground, as indicated on the construction plans. The approximate length of the road is 600 ft.
- A control section (143' long x 48' wide) will be excavated to elevation 4.5 feet. This area is a ridge between two (2) low areas. The control section will be vegetated.
- The road section located in the entrance and exit channel of the auxiliary spillway will be excavated to a specified elevation that will not disrupt the proper functioning of the spillway. The road crossing will utilize geotextile and crusher run rockfill.
- Other areas that will utilize crusher run rockfill include the top of Lower Tenant embankment, sump ramp, and other areas as indicated.

Middle Tenant Embankment

This embankment will be increased to a settled elevation of 10.4, which in turn will increase the existing footprint. The increase in the base width will be upstream into the pond. The existing three (3) pond system (West / Upper / Middle) will be converted into a one (1) pond system with Middle Tenant embankment becoming the main structural component.

- All debris and organic matter on the existing embankment will be removed and disposed of in a designated area on the Station property.
- The upstream and downstream sides will be reshaped to have a final slope of 2.5:1 (H:V).
- The embankment will be extended to meet the new elevation requirements.
- Two (2) new water control structures with anti-seep collars will be installed. A 66" flashboard riser and 36" cmp will be located on the end of the embankments. A 54" full round riser and 36" cmp will be installed on the opposite end of the renovated embankment.
- The existing concrete box wcs and any other pipes through the embankment will be removed.
- Muck will be excavated at all locations of new earthfill within the existing pond area and at the two (2) water control structures.

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- Inlet and outlet channels will be excavated to facilitate pond management.
- A ramp and sump pump area will be constructed.

Middle Tenant Auxiliary Spillway

Currently this pond system has no auxiliary spillway. This design incorporates an auxiliary spillway to safely manage any excess flow from a 25yr-24hr storm.

- The entrance and exit sections will be cleared and grubbed.
- A control section (50' wide x 32' long) will be excavated as located on the drawing. The control section will be vegetated.
- The road section located in the entrance channel of the auxiliary spillway will be excavated to the proper elevation and will utilize geotextile and crusher run rockfill.
- Other areas that will utilize crusher run rockfill include the top of Middle Tenant embankment, sump ramp, and other areas as indicated.

West / Upper Tenant Embankments

These two (2) embankments will be breached thus allowing for the creation of one (1) large pond system.

- All debris and organic matter on the existing embankment will be removed and disposed of in a designated area on the Station property.
- A 50 ft wide section of the West Tenant embankment will be breached.
- A 50 ft wide section of the Upper Tenant embankment will be breached.
- Structure removal for these embankments will include a wcs in West Tenant and a wcs and a metal culvert pipe in Upper Tenant.
- A 40 ft clearing limit will be marked on the downstream sides of both West and Upper Tenant embankments. All clearing in this area will be done by handheld equipment and removed to an approved disposal area on the Station property. This area will not require grubbing.
- For pond management, a channel will be excavated (4' bottom width x 4' deep) from the upper end of Middle Tenant pond along the downstream side of West Tenant and into both West and Upper Tenant ponds.
- If breach material is suitable, it will be utilized on-site to re-construct the embankment side slopes on West & Upper Tenant to 2.5:1 (H:V).

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Embankment – Dutes, Brown, Logan, & George

These embankments will be increased in overall height, which in turn will increase the existing footprint. The increase in the base width will be upstream into the pond.

- All debris and organic matter on the existing embankment will be removed and disposed of in a designated area on the Station property.
- The upstream and downstream sides will be reshaped to have a final slope of 2.5:1 (H:V).
- The embankment will be extended to meet the new elevation requirements.
- Structure removal for these embankments will include existing water control structures as indicated on the construction plans.
- Muck will be excavated at all locations of new earthfill within the existing pond area and at the water control structure.
- Inlet and outlet channels will be excavated to facilitate pond management.
- A ramp and sump pump area will be constructed.

Dutes - A new water control structure consisting of a 48" diameter flashboard riser and 24" diameter cmp barrel with anti-seep collar will be installed.

Dutes - An existing 15" RCP culvert will be removed and a new 15" HDPE @ 45 ft will be installed at the same location.

Brown - A new water control structure consisting of a 54" diameter flashboard riser and 36" diameter cmp barrel with anti-seep collar will be installed.

Logan - A new water control structure consisting of a 48" diameter flashboard riser and 24" diameter cmp barrel with anti-seep collar will be installed.

George - A new water control structure consisting of a 36" diameter flashboard riser and 18" diameter cmp barrel with anti-seep collar will be installed.

Auxiliary Spillway – Dutes, Brown, Logan, & George

Currently these pond systems have no auxiliary spillways. This design incorporates an auxiliary spillway to safely manage any excess flow from a 25yr-24hr storm.

- The entrance sections, control sections, and exit sections will be cleared and grubbed as indicated on the construction drawings.
- Any road section located in the auxiliary spillway will be excavated to the proper elevation and will utilize geotextile and crusher run rockfill.

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- Other areas that will utilize crusher run rockfill include the top of embankments, sump ramps, and other areas as indicated.

Dutes - A control section (50' wide x 40' long) will be excavated in a non-wetland area. The control section will be armored with crusher run rockfill.

Brown - A control section (75' wide x 25' long) will be excavated in a non-wetland area. The control section will be armored with crusher run rockfill.

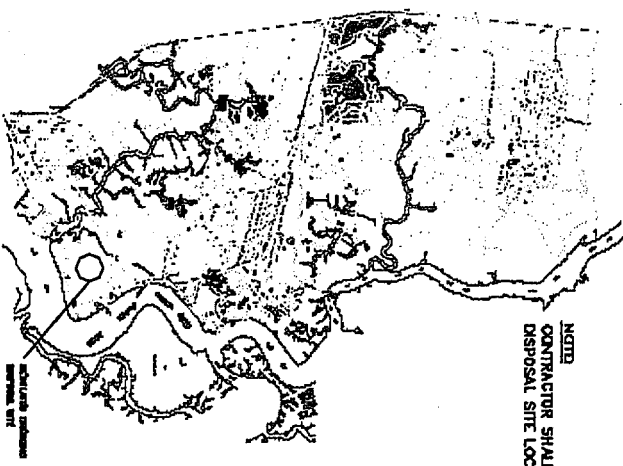
Logan - A control section (50' wide x 25' long) will be excavated in a non-wetland area. The control section will be armored with crusher run rockfill.

George - A control section (50' wide x 25' long) will be excavated in a non-wetland area. The control section will be armored with crusher run rockfill.

- END OF DESCRIPTION OF WORK -

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Naval Weapons Station		Embankment Renovations			ycm	Checked:		
Berkeley County					10/8/01			
Location	Description	Calculations			Volume (cyd)	Type		
		Length (ft)	Width (ft)	Depth (ft)				
Lower Tenant	Footprint expansion	615	27	8	4,920	fill		
	Muck removal & fill	615	50	3	3,417	excav & fill		
	Riprap Apron	475	10	3	528	fill		
	Inlet Channel	30	6	3	20	excavation		
	Sump Ramp	30	6	22	147	fill		
Lower Tenant - Auxiliary Spillway		Control section	143	48	0.666	169	excavation	
Middle Tenant	Footprint expansion	300	10	5	556	fill		
	Muck removal & fill	300	16	3	533	excav & fill		
	Inlet Channel	30	6	3	20	excavation		
	Sump Ramp	40	6	22	196	fill		
	Navigation channel	200	8	4	237	excavation		
Middle Tenant - Auxiliary Spillway		Control section	180	50	1	333	excavation	
West Tenant	Footprint expansion	200	4	1	30	fill		
	Breach section	50	17	4.5	142	excavation		
Upper Tenant	Footprint expansion	325	3	1	36	fill		
	Breach section	50	19	5	176	excavation		
Dutes	Footprint expansion	300	7	5	389	fill		
	Muck removal & fill	300	22	3	733	excav & fill		
	Inlet Channel	30	6	3	20	excavation		
	Sump Ramp	30	5	20	111	fill		
Dutes - Auxiliary Spillway		Control section	260	50	2.2	1,059	excavation	
Brown	Footprint expansion	450	15	6	1,500	fill		
	Muck removal & fill	450	35	3	1,750	excav & fill		
	Inlet Channel	30	6	3	20	excavation		
	Sump Ramp	30	6	22	147	fill		
Brown - Auxiliary Spillway		Control section	150	75	2.5	1,042	excavation	
Logan	Footprint expansion	(decrease in base width)			0	fill		
	Muck removal & fill	N/A			0	excav & fill		
	Inlet Channel	30	6	3	20	excavation		
	Sump Ramp	30	6	20	133	fill		
Logan - Auxiliary Spillway		Control section	65	50	1	120	excavation	
George	Footprint expansion	525	18	6	2,100	fill		
	Muck removal & fill	525	42	3	2,450	excav & fill		
	Inlet Channel	30	6	3	20	excavation		
	Sump Ramp	40	7	25	259	fill		
George - Auxiliary Spillway		Control section	260	50	2.5	1,204	excavation	
Estimated Fill Yardage:					19,934	cyd		
Estimated Excavation Yardage:					13,486	cyd		
Auxiliary Spillway excavation for Middle Tenant, Dutes, Brown, Logan, and George ponds do not involve any wetlands.								



INDEX TO DRAWINGS

- 1) COVER SHEET
- 2) TBL LOCATIONS, ELEVATIONS, & DESCRIPTIONS
- 3) LOWER TENANT - EMBANKMENT PLAN VIEW & PROFILE
- 4) LOWER TENANT - WATER CONTROL STRUCTURE DETAIL
- 5) LOWER TENANT - EMBANKMENT EXTENSION PLAN VIEW & PROFILE
- 6) LOWER TENANT - AUXILIARY SPILLWAY PLAN VIEW & PROFILE
- 7) MIDDLE TENANT - EMBANKMENT PLAN VIEW & PROFILE
- 8) MIDDLE TENANT - WATER CONTROL STRUCTURES DETAILS
- 9) MIDDLE TENANT - AUXILIARY SPILLWAY PLAN VIEW, PROFILE, & DETAILS
- 10) WEST & UPPER TENANT - EMBANKMENT PLAN VIEW & PROFILE
- 11) WEST & UPPER TENANT - EMBANKMENT RENOVATION PLAN & SECTION VIEW
- 12) DUES - EMBANKMENT PLAN VIEW & PROFILE
- 13) DUES - WATER CONTROL STRUCTURE DETAIL
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- 15) BROWN - EMBANKMENT PLAN VIEW & PROFILE
- 16) BROWN - WATER CONTROL STRUCTURE & AUXILIARY SPILLWAY PLAN VIEW & PROFILE
- 17) LOGAN - EMBANKMENT PLAN VIEW & PROFILE
- 18) LOGAN - WATER CONTROL STRUCTURE & AUXILIARY SPILLWAY PLAN VIEW & PROFILE
- 19) GEORGE - EMBANKMENT PLAN VIEW & PROFILE
- 20) GEORGE - WATER CONTROL STRUCTURE & AUXILIARY SPILLWAY PLAN VIEW & PROFILE
- 21) PUMP SLIP & RAMP - PLAN VIEW & PROFILE
- 22) SEDIMENT & EROSION CONTROL, GRAVEL PLACEMENT, & CONSTRUCTION NOTES

NOTED
CONTRACTOR SHALL TRANSPORT ALL DEBRIS TO A REGULATED DREDGING DISPOSAL SITE LOCATED AT NMS PER C.

NORTH AMERICAN WATERFOWL MANAGEMENT PROJECT

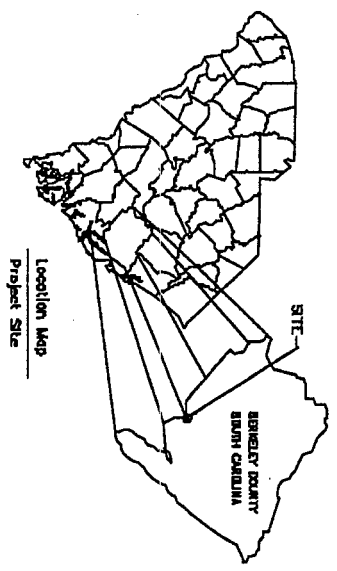
BERKELEY COUNTY, SOUTH CAROLINA

NATURAL RESOURCES CONSERVATION SERVICE

U.S. DEPARTMENT OF AGRICULTURE

DEPARTMENT OF DEFENSE - SOUTHERN DIVISION NAVAL FACILITIES
ENGINEERING COMMAND AND NATURAL RESOURCES BRANCH - NAVAL WEAPONS STATION
U.S. FISH AND WILDLIFE SERVICE

JANUARY 2003



CONSTRUCTION DRAWINGS APPROVED BY:

ENGINEER

DATE

2003-12-123-C

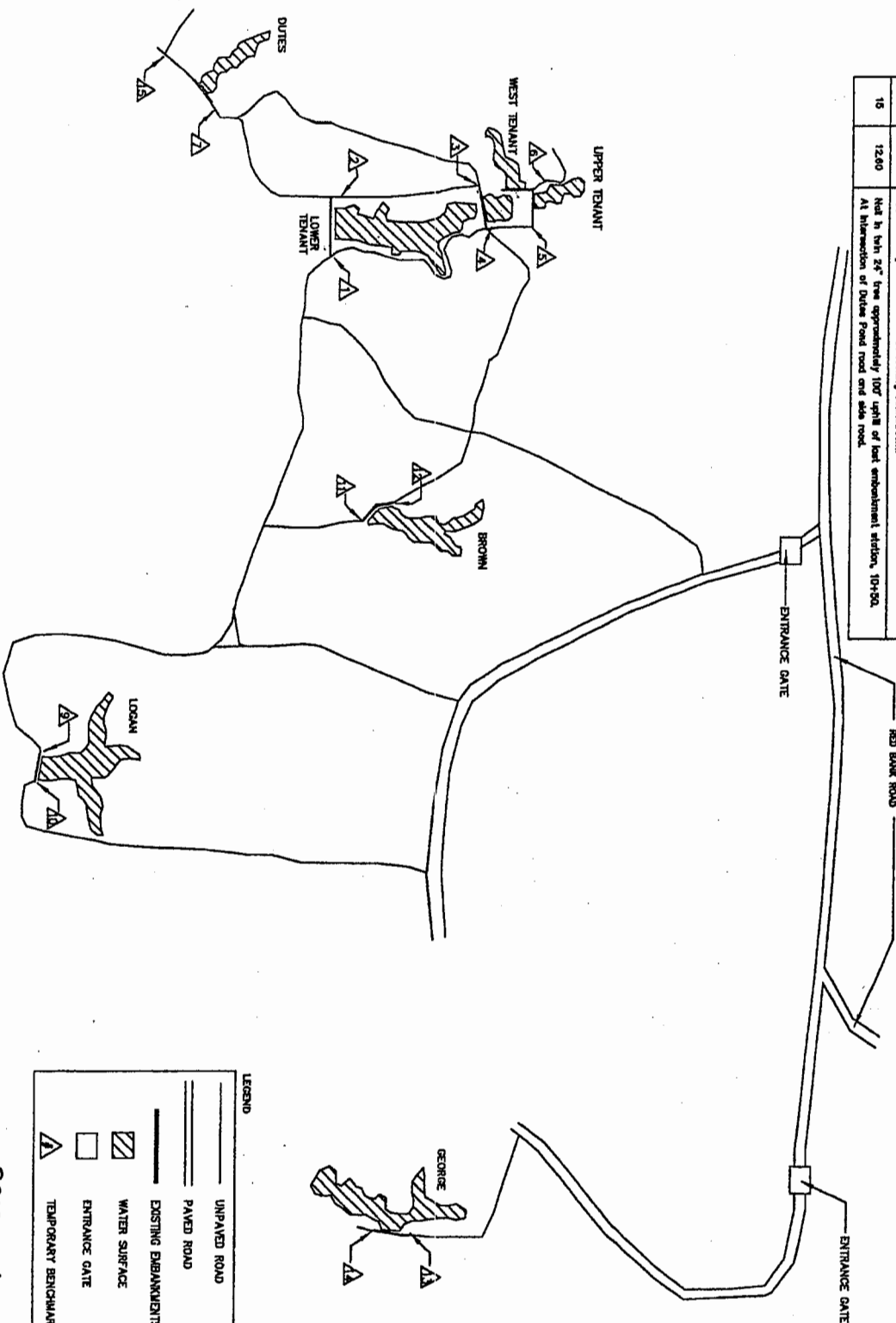
DRAWING NUMBER
SC-ED-23-001

SHEET NO. 1 OF 22

Revised
Sept 2003

TBM No.	ELEVATION	DESCRIPTION
1	8.74	Met & also in 10" pipe at junction of Lower Tenant dam & road, on left side looking downstream.
2	10.23	Met & also in 10" pipe located 50' upstream of Lower Tenant dam & road junction, on right side looking downstream.
3	13.20	Met & also in 10" pipe at junction of road & Middle Tenant dam, on right side looking downstream.
4	8.86	Met & also in 10" pipe approximately 100' upstream from Middle Tenant dam, on left side looking downstream.
5	10.13	Met & also in 12" red maple approximately 75' downstream of Upper Tenant dam, on left side looking downstream.
6	12.28	Met & also in 8" pipe on right side of Upper Tenant dam, when looking downstream, approximately 100' upstream of Upper & West Tenant dam junction.
7	8.81	Met & also in 12" steelbeam on downstream side of road across Dulac dam, approximately 100' on left side looking downstream.
15	12.50	Met in 24" tree approximately 100' up of last embankment section, 10+50. At intersection of Dulac Pond road and side road.

TBM No.	ELEVATION	DESCRIPTION
8	7.81	Met & also in 20" pipe located on right side of Logan dam when looking downstream, approximately 100' ft from water.
10	8.77	Met & also in 20" pipe on left side of Logan dam when looking downstream.
11	7.87	Met & also in 22" pipe on downstream side of road and on left side of Brown dam when looking downstream.
12	12.88	Met & also in 24" triple truck oak at station 9+15 on upstream side of Brown pond and across road, approximately 10' ft off road edge.
13	8.28	Met in powerpole on left side of dam when looking downstream, spray insect on top of the pole.
14	8.56	Met in crooked 12" pine tree on right side of dam when looking downstream, at station 18+35.



UNPAVED ROAD	PAVED ROAD
EXISTING EMBANKMENTS	WATER SURFACE
ENTRANCE GATE	TEMPORARY BENCHMARK (TBM)

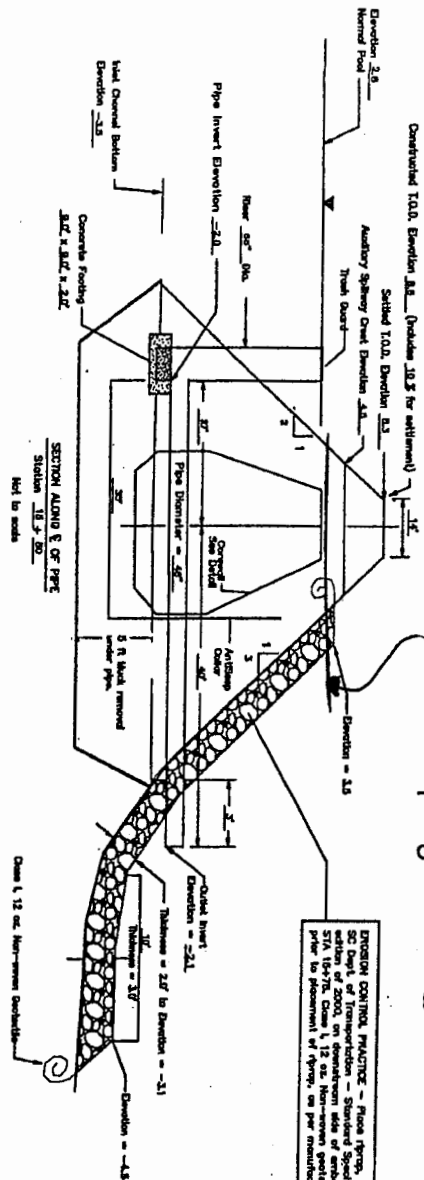
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NOT TO SCALE

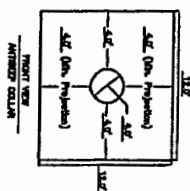
NAVAL WEAPONS STATION EMBANKMENT RENOVATION BERKELEY COUNTY, SOUTH CAROLINA TBM LOCATIONS, ELEVATIONS, & DESCRIPTIONS		Surveyed: <u>Mazdab, Bentley, Ginn, Bennett</u> Drawn: <u>Greg Bennett</u> 12/21/00 Traced: _____ Checked: _____	Approved by: _____ Title: _____ Date: _____
U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE		GAO FILE NO. _____ SHEET 2 of 22 SC-ENG-03-001 SHEET NO. 2 of 22	

LOWER TENANT POND

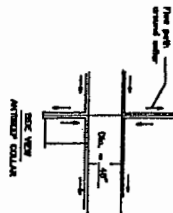
Ordinary High Water @ 3.3 FT.



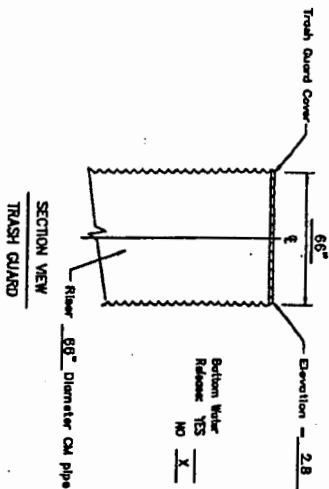
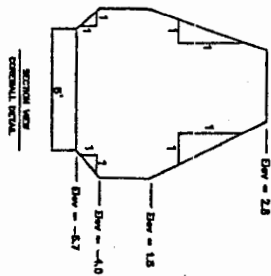
SC Dept. of Transportation - Standard Specifications for Highway Construction, edition of 2000, on downstream side of embankment from STA 11+00 to STA 16+70. Class 1, 12 oz. Non-woven geotextile shall be installed prior to placement of riprap, on per manufacturer's recommendations.



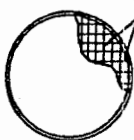
Antibond Order Probability Amplitude = $\frac{1}{2} \frac{1}{2} = \frac{1}{4}$ (comp = $\frac{1}{2}$) (includes p-orbital overlap)



BOOK REVIEW
ANTHONY COLLINS



See Note 1



PLAN VIEW
TRASH GUARD COVER

Trash Guard Notice

- 1 - Gritting shall be pressure loaded - diamond gritting media with $3/4"$ to $1 1/4"$ bearing bore on $6"$ cast iron OR cast iron hardened from $1/2"$ to $1 1/2"$ diameter bores on a $6"$ of speed. Use hot dipped zinc coated steel for steel pipes.
- 2 - Dimensions shown are nominal and may vary by manufacturer. Contractor shall verify all dimensions prior to fabrication.
- 3 - If applicable, metal bolts with corrugations vertical
- 4 - Minimum steel thickness for the aluminum bolting and trench nail shall typically be equal to OR ONE (1) pipe size thicker than the Principia Spigot. Aluminum dimensions shall not exceed 12 pipe unless specified by an Engineer.
- 5 - For Bottom Water Release extend the trench 2 ft. in the specified depths. If required, field cut spigots for installation of shore pipe lifting device and main gate steel.
- 6 - All metals used in the trench grout, lining, and barrel shall be made of the same material.

2003-12-123-C

Not to scale

NAVAL WEAPONS STATION EMBANKMENT RENOVATION
BERKELEY COUNTY, SOUTH CAROLINA
LOWER TENANT - WATER CONTROL STRUCTURE DETAIL

U.S. DEPARTMENT OF AGRICULTURE--NATURAL RESOURCES CONSERVATION SERVICE

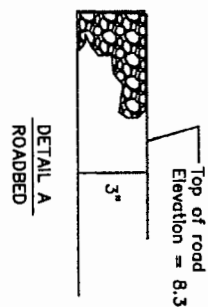
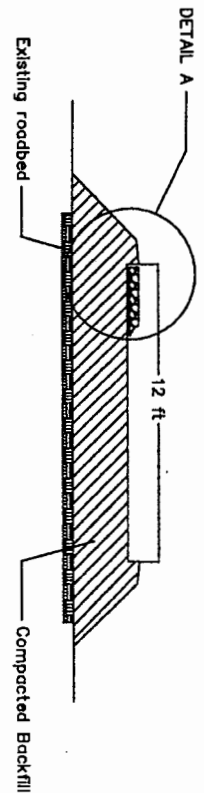
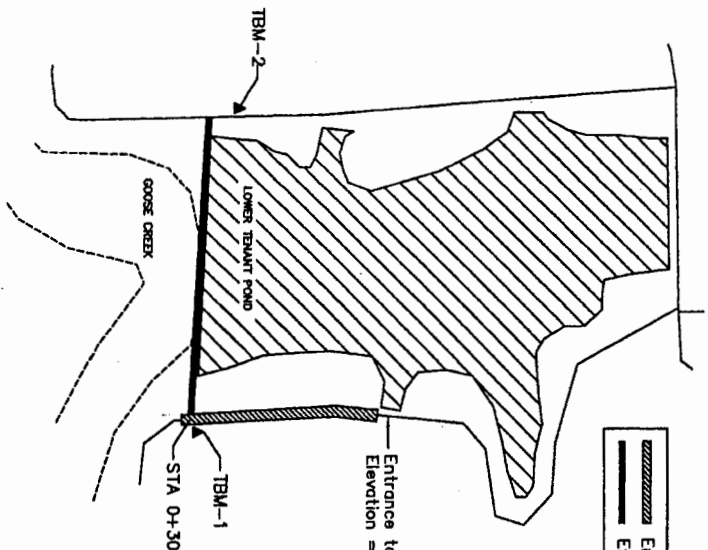
Designed	ycm
Drawn	Greg
Traced	
Checked	

12/19/00
12/19/00

Approved by:	
Title:	
Date:	

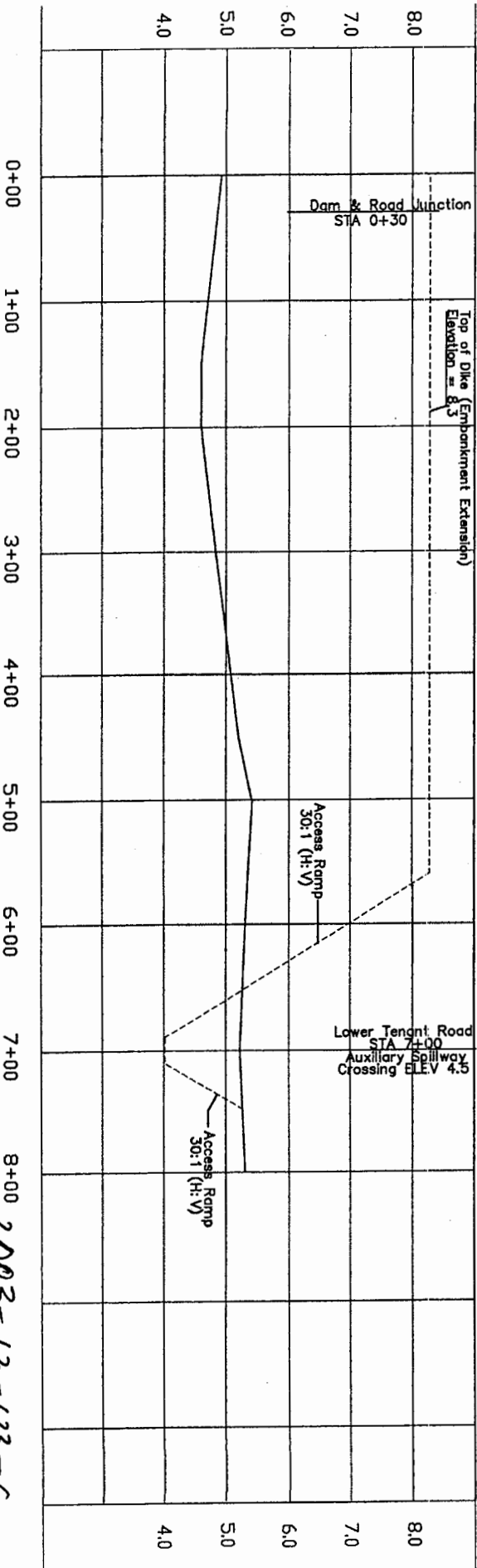
CAD FILE NO.
SHEET 4.dwg
DRAWING NO.
SC-ENG-03-001
SHEET NO. 4 of 22

Revised
Sept 2003



NOTE: ALL GEOTEXTILE SHALL BE CLASS 1, 12 oz NON-WOVEN UNLESS OTHERWISE NOTED.
EXISTING ROADBED WILL BE STOCKPILED AND UTILIZED AS FINAL DRESSING FOR THE NEW ROAD SECTION.

NOT TO SCALE



NAVAL WEAPONS STATION EMBANKMENT RENOVATION BERKELEY COUNTY, SOUTH CAROLINA LOWER TENANT - EMBANKMENT EXTENSION PLAN VIEW & PROFILE		Designed <u>Yasmin Wazdab</u> 12/21/00 Drawn <u>Greg Bennett</u> 12/21/00 Traced _____ Checked _____	Approved by: _____ Title _____ Date _____
U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE			

CADD FILE NO. _____
 SHEET NO. 5 of 22
 DRAWING NO. SC-ENC-03-001
 2003-12-123-C

3M-2

LOWER TENANT POND

GOOSE CREEK

Flow Direction

STA 0+28 - Auxiliary Spillway Profile grade
STA 7+00 Road Profile

Temporary Road
15' R Clearing Limit

STA 6+45 - 7+98
48' wide Control Section
Clearing Limit = 0' L / 60' R

STA 12+01 Exit
Auxiliary Spillway Crossing - 48 ft Wide
Elevation = 3.9

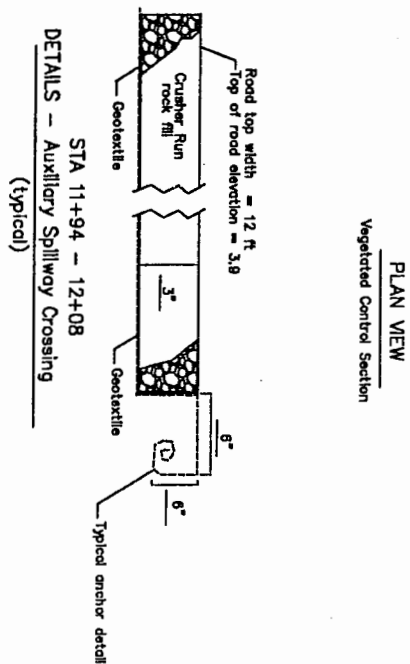
Natural Wet / Low Areas

To Paved Road

NOT TO SCALE

Legend:

- Embankment Extension
- Existing Embankment



Centerline of road
STA 0+26
Elevation = 4.5

Wet area
Bottom profile

Temporary Construction Road
30' L/30' R

Control Section
STA 6+45
Elevation = 4.5

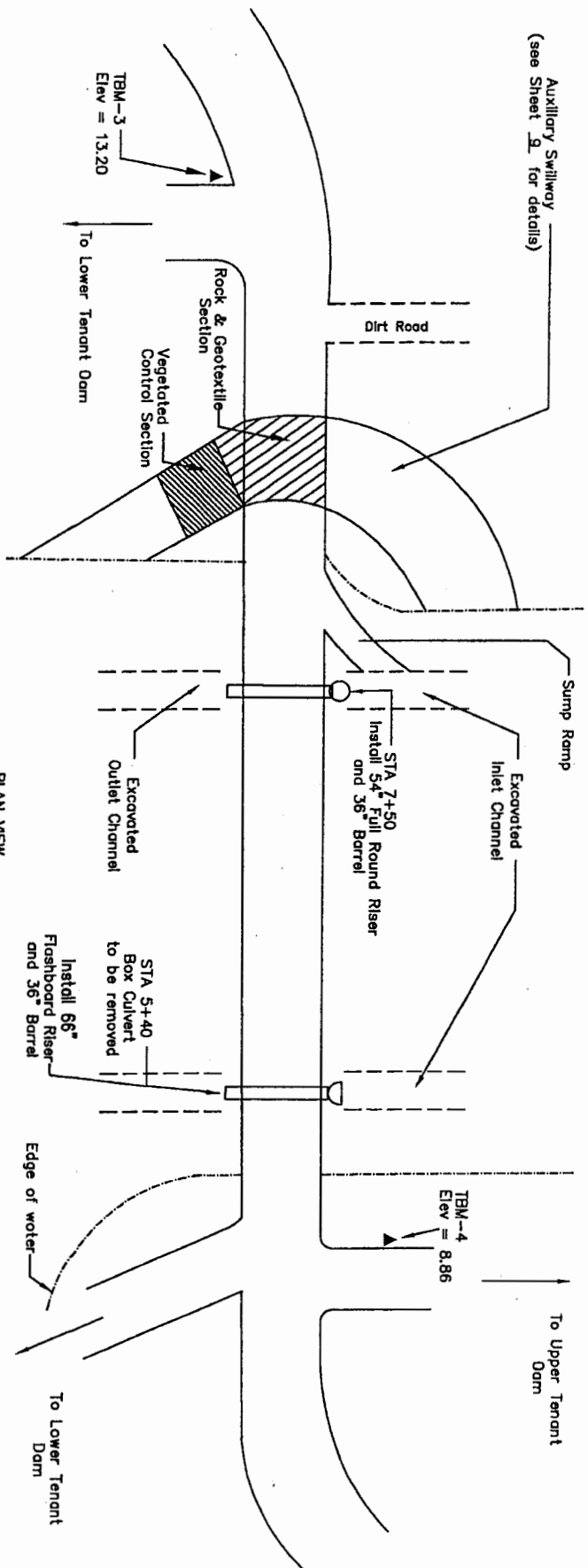
Control Section
STA 7+88
Elevation = 4.5

Centerline of road
STA 12+01
Auxiliary Spillway Crossing
Elevation = 3.9

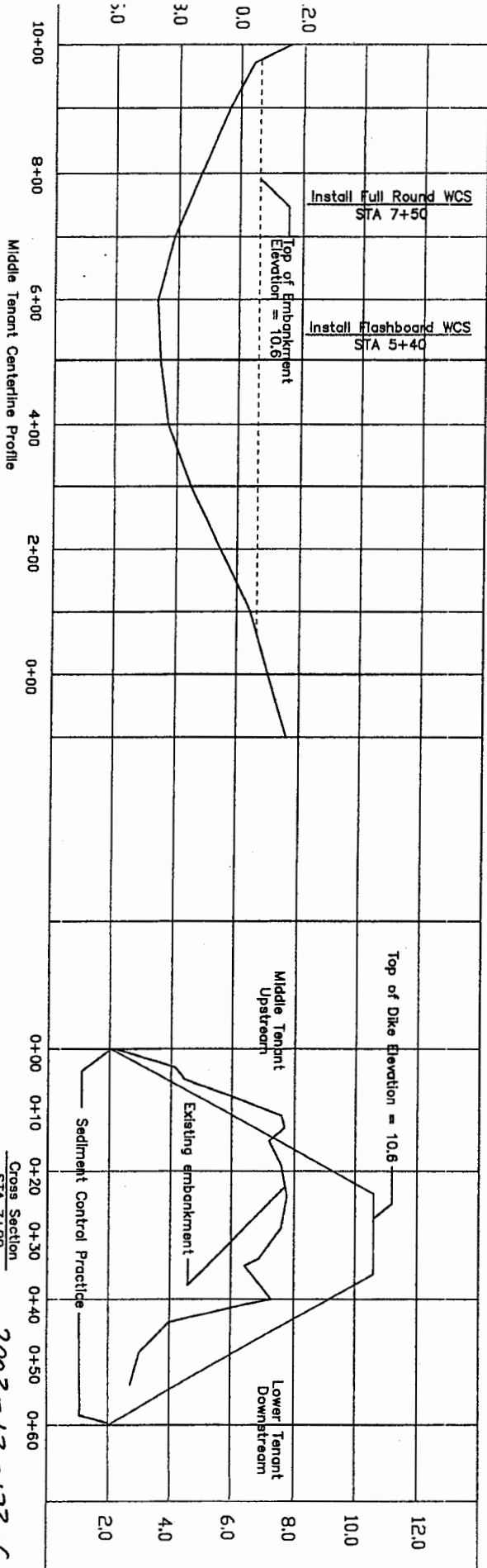
Natural Ground

Spillway
35' L/35' R

SHEET NO. 8 of 22	DRAWING NO. SC-BN-03-001	CADD FILE NO. SHEET.dwg	NAVAL WEAPONS STATION EMBANKMENT RENOVATION BERKELEY COUNTY, SOUTH CAROLINA LOWER TENANT - AUXILIARY SPILLWAY PLAN VIEW & PROFILE	Designed <u>Yasmin C. Mazzab</u> <u>01/23/2001</u>	Approved by: _____
			U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE	Drawn <u>Greg Bennett, Yasmin C. Mazzab</u> <u>01/23/2001</u>	Title _____
				Traced _____	Date _____
				Checked _____	



PLAN VIEW
Middle Tenant Embankment
Not to Scale



NAVAL WEAPONS STATION EMBANKMENT RENOVATION
BERKELEY COUNTY, SOUTH CAROLINA
MIDDLE TENANT - EMBANKMENT PLAN VIEW & PROFILE

U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE

Designed YCM 12/19/00
Drawn Greg Bennett 12/19/00
Traced
Checked

Approved by:
Title
Title

SHEET NO. 7 of 22
2003-12-123-C

FLASHBOARD RISER and BARREL PIPE

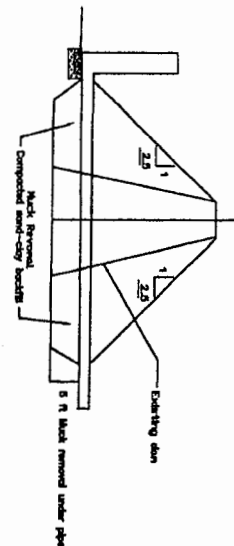


TABLE - 3 (CONSTRUCTION AND ELEVATION)

18" and 3" dia to 15 inch pipe at road junction, right side looking downstream from Middle Trench embankment.

ELEVATION = 13.20

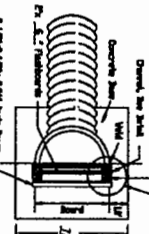
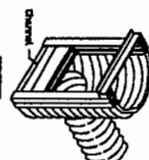
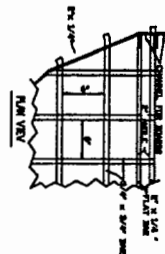


TABLE - 4 (CONSTRUCTION AND ELEVATION)

18" and 3" dia to 15 inch pipe at road junction, right side looking downstream from Middle Trench embankment.

ELEVATION = 13.20

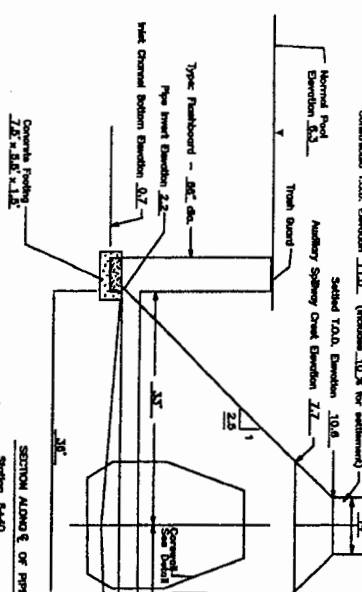
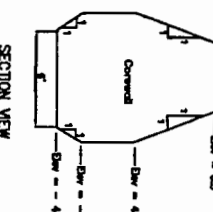


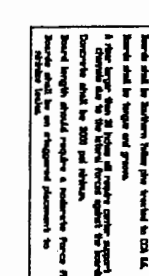
TABLE - 5 (CONSTRUCTION AND ELEVATION)

18" and 3" dia to 15 inch pipe at road junction, right side looking downstream from Middle Trench embankment.

ELEVATION = 13.20



SECTION VIEW
CROWN DETAIL



FULL ROUND RISER and BARREL PIPE

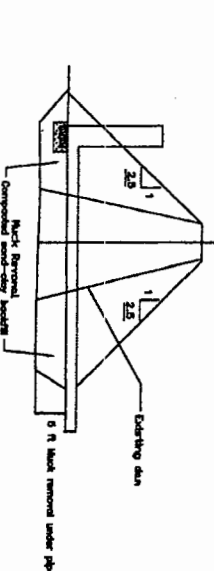


TABLE - 3 (CONSTRUCTION AND ELEVATION)

18" and 3" dia to 15 inch pipe at road junction, right side looking downstream from Middle Trench embankment.

ELEVATION = 13.20

TABLE - 4 (CONSTRUCTION AND ELEVATION)

18" and 3" dia to 15 inch pipe at road junction, right side looking downstream from Middle Trench embankment.

ELEVATION = 13.20

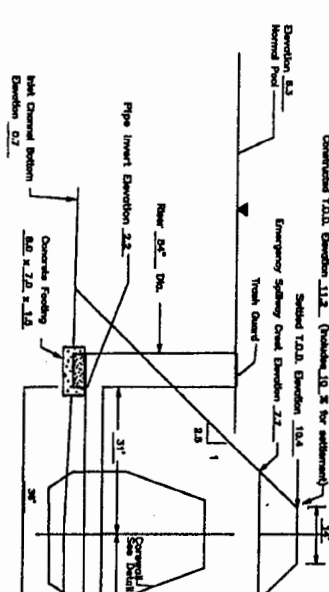
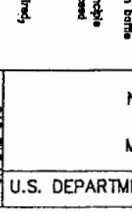
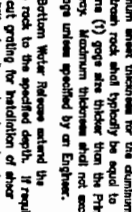
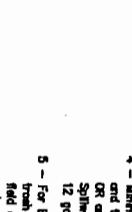
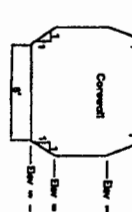


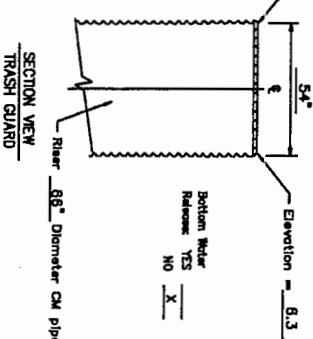
TABLE - 5 (CONSTRUCTION AND ELEVATION)

18" and 3" dia to 15 inch pipe at road junction, right side looking downstream from Middle Trench embankment.

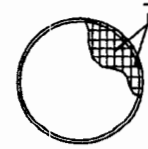
ELEVATION = 13.20



SECTION VIEW
TYPICAL TRASH GUARD



PLAN VIEW
TRASH GUARD COVER

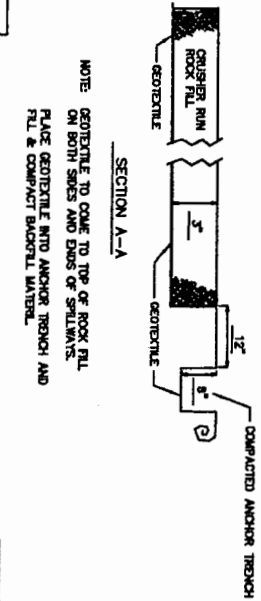
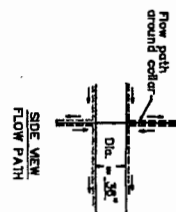
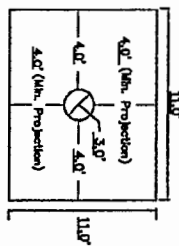
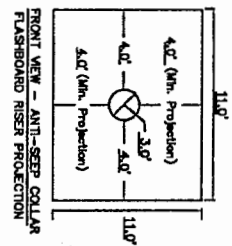
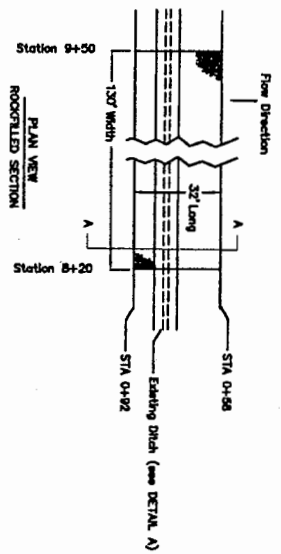
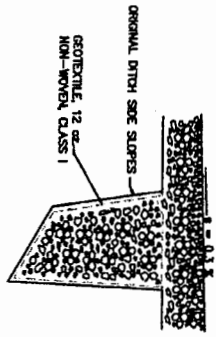


- 1 - Grouting shall be pressure grouted with 3/4" x 1/8" barbed wire mesh on 1/2" x 1/2" dimension bars on a 6" x 6" grid. Use hot dipped zinc coated steel for steel plates.
- 2 - Dimensions shown are nominal and may vary with manufacturer. Contractor shall verify all dimensions prior to fabrication.
- 3 - If applicable, barrel baffle with corrugated metal.
- 4 - Minimum sheet thickness for the aluminum baffle and trash rack shall typically be equal to OR one (1) gauge also thicker than the Principle Spillway. Minimum thickness shall not exceed 12 gauge unless specified by an Engineer.
- 5 - For Bottom Water Barriers install the trash rack to the specified depth. If required, field out grouting for penetration of shear pins into grouting and mesh gate alarm.
- 6 - All metals used in the trash guard, flow, and barrel shall be made of the same material.

2003-12-123-C

Designed	ycm	12/18/00	Approved by:
Drawn	Greg Bennett	12/18/00	Title
Traced			Date
Checked			

MIDDLE TENANT POND



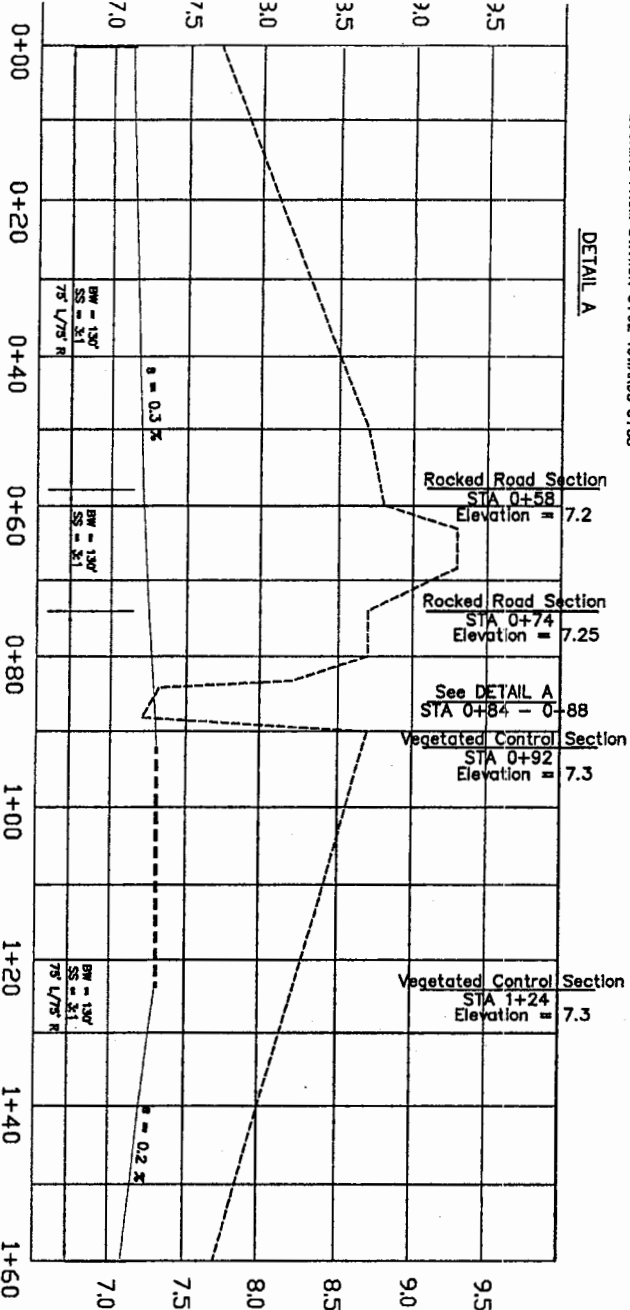
NOTE: GEOTEXTILE TO COME TO TOP OF ROCK FILL ON BOTH SIDES AND ENDS OF SPILLWAYS. PLACE GEOTEXTILE INTO ANCHOR TRENCH AND FILL & COMPACT BACKFILL MATERIAL.

Antiseep Collar Flashboard Riser - Purchase dimensions* = 11'0" x 11'0" (Gauge = 12").
Antiseep Collar Full Round Riser - Purchase dimensions* = 11'0" x 11'0" (Gauge = 12").
(* Includes pipe diameter).

LAY GEOTEXTILE INTO EXISTING DITCH FROM STA 8+20 TO 9+50 SO THE TOP OF THE GEOTEXTILE IS IN GOOD SOIL CONTACT WITH ALL SIDES OF THE DITCH. FILL THE DITCH WITH CRUSHED RUN ROCK FILL FROM STA 8+20 TO 9+50. LAY FLAP ① ACROSS TOP OF ROCK AND LOWER FLAP ② AS SHOWN.

ISOMETRIC VIEW
LOOKING FROM STATION 0+92 TOWARDS 0+58

DETAIL A



AUXILIARY SPILLWAY CENTERLINE PROFILE - STA 8+20 ON EXISTING PROFILE

2003-12-123-C

DRAWING NOT TO SCALE

CADD FILE NO. SHEET NO. DRAWING NO. SC-ENG-03-001 SHEET NO. 9 of 22	NAVAL WEAPONS STATION EMBANKMENT RENOVATION BERKELEY COUNTY, SOUTH CAROLINA MIDDLE TENANT - AUXILIARY SPILLWAY PLAN VIEW & PROFILE & ANTISEEP COLLAR DETAILS U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE		Designed: Yamin C. Mazzab 01/23/2001	Approved by:
			Drawn: Greg Bennett 01/23/2001	Title:
			Traced:	Date:
			Checked:	

TBM-6
Elev = 12.28

STA 1+00

STA 1+50

STA 10+00

Upper Tenant Pond

STA 8+00

STA 7+00

STA 6+00

TBM-5
Elev = 10.13

West Tenant Pond

STA 2+00

STA 3+00

STA 4+00

channel centerline

40' wide downstream clearing limit

Navigation Channel

- NOTE:
1. Clearing shall be done by chainsaw or other handheld equipment.
 2. Increase all remaining side slopes to 2:1.
 3. Embankment material shall be excavated to Elevation = 3.0

PLAN VIEW

Drawing not to scale



Centerline of navigation channel (4' bottom x 4' deep)

Embankment section to be removed (100' long)

Remove Existing WCS
End of Breach
STA 2+00

Start of Breach
STA 1+50

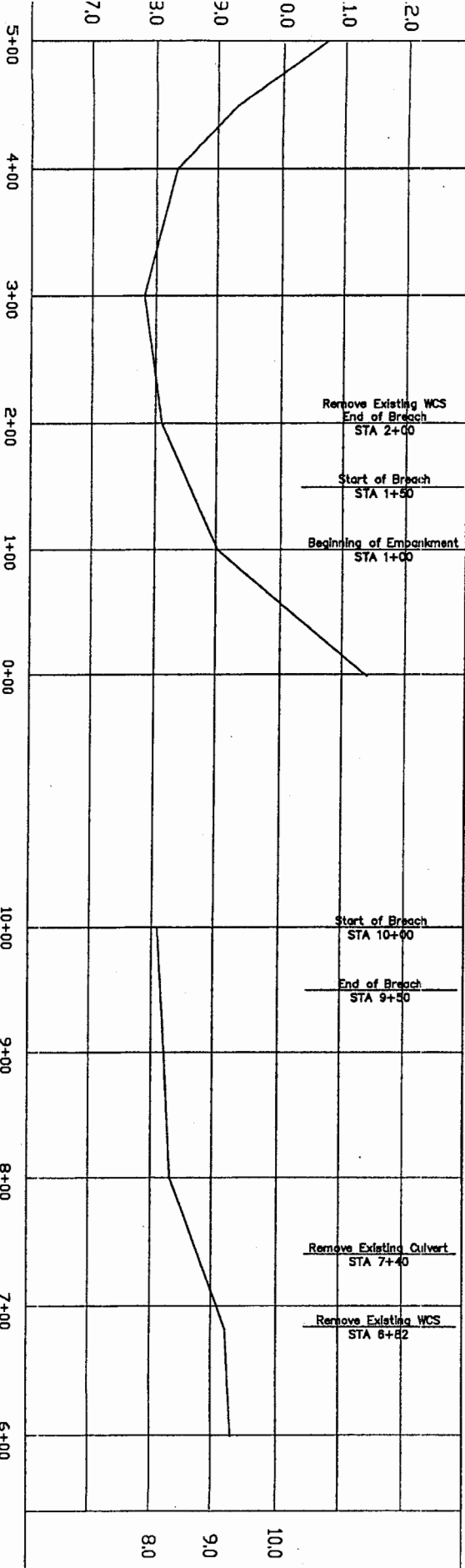
Beginning of Embankment
STA 1+00

Start of Breach
STA 10+00

End of Breach
STA 9+50

Remove Existing Culvert
STA 7+40

Remove Existing WCS
STA 6+82



NAVAL WEAPONS STATION EMBANKMENT RENOVATION
BERKELEY COUNTY, SOUTH CAROLINA
WEST & UPPER TENANT- EMBANKMENTS PLAN VIEW & PROFILE

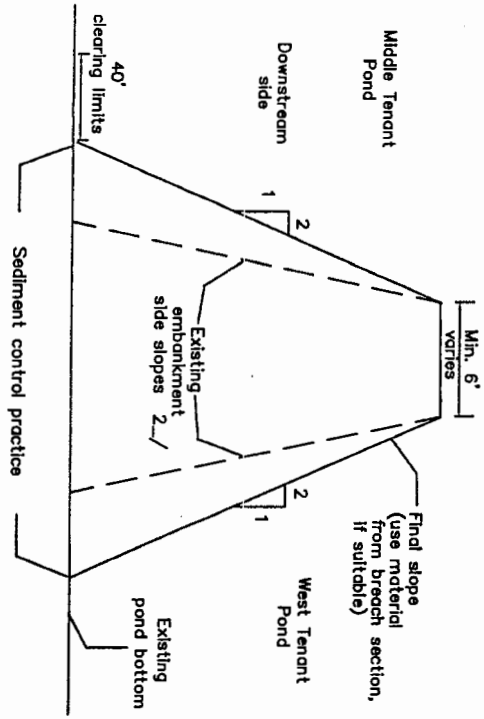
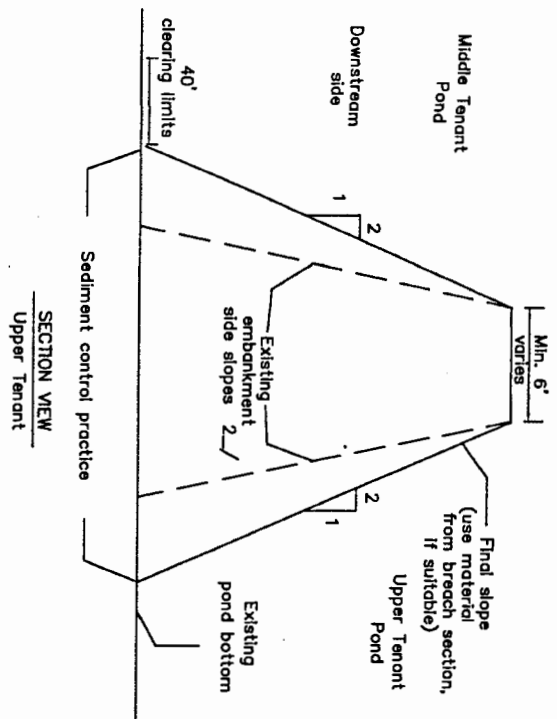
U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE

Designed	Yasmin Mazzab	12/18/00
Drawn	Greg Bennett	12/19/00
Traced		
Checked		

Approved by:	
Title	
Date	

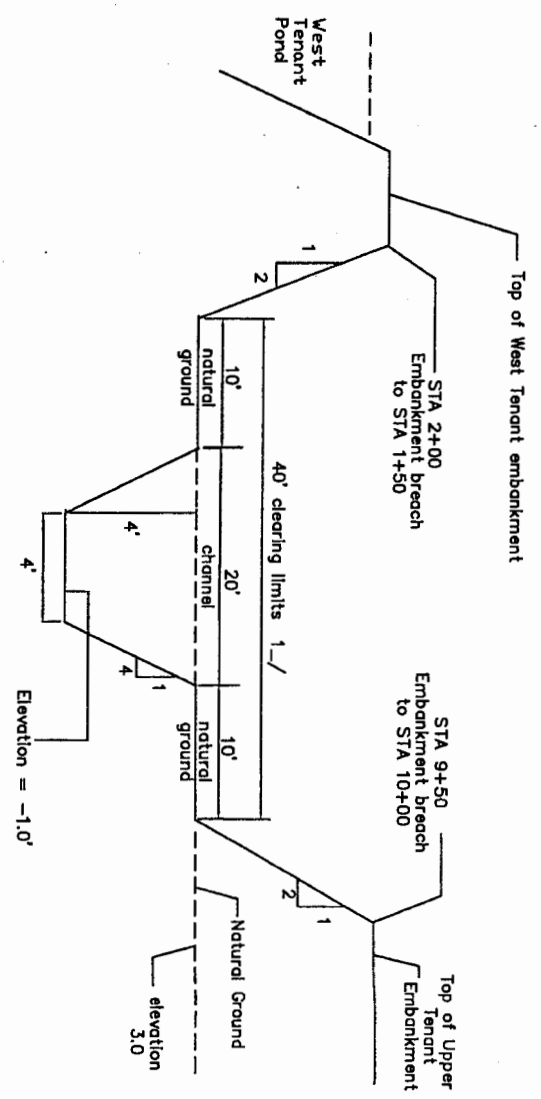
CAD FILE NO.
SHEET/DWG
DRAWING NO.
SC-BNC-03-001
SHEET NO. 10 of 22

2003-12-123-C

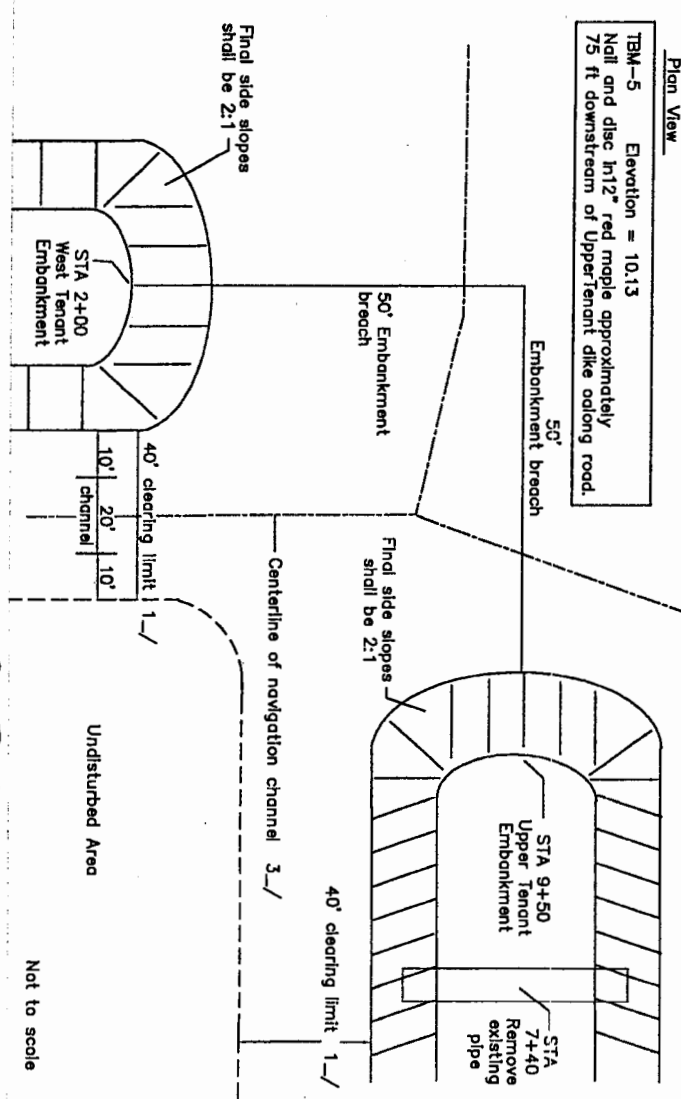


- NOTE: 1. Area to be cleared with chainsaws.
- NOTE: 2. Remove all organic material and stumps from the existing side slopes. Scarify to prepare bonding surface.
- NOTE: 3. The channel shall extend as far into the pond area as practical. Minimum excavation distance shall be 20'.

Not to scale



TBM-5 Elevation = 10.13
Nail and disc h12" red maple approximately
75 ft downstream of Upper Tenant dike along road.



2003-12-123-C

Not to scale

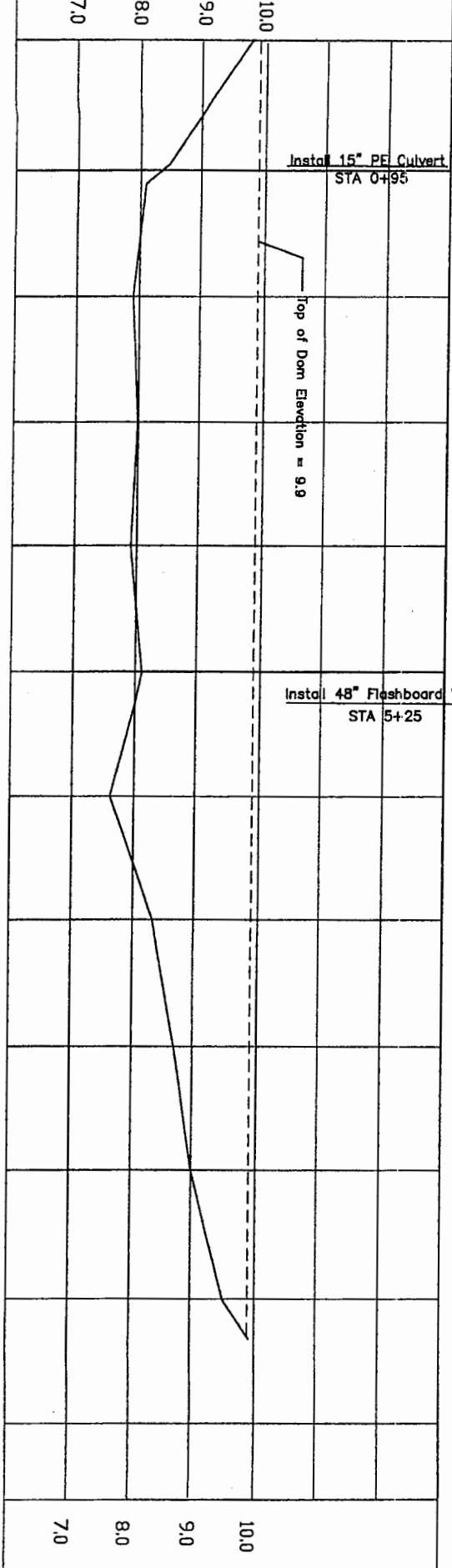
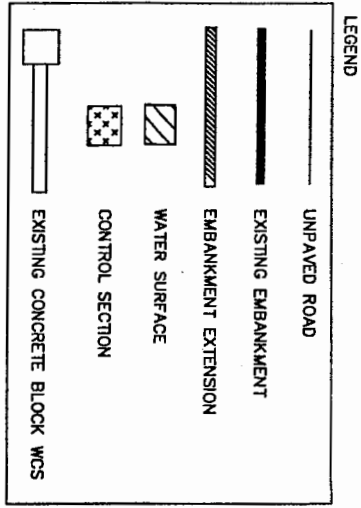
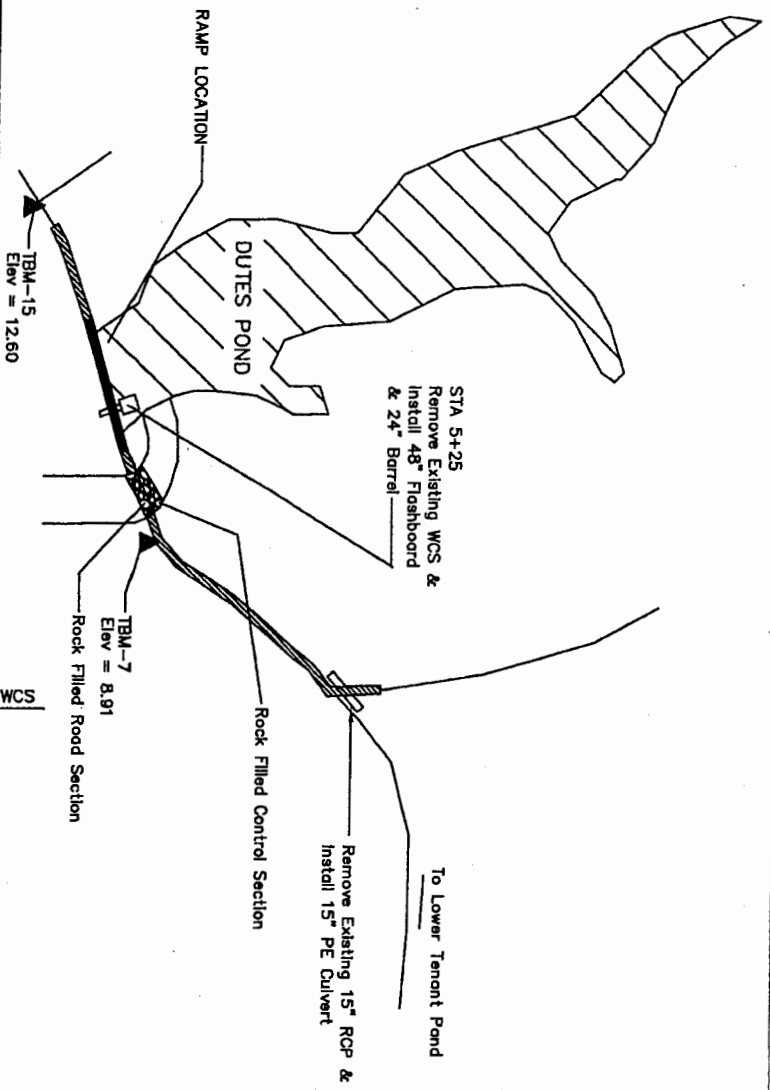
NAVAL WEAPONS STATION EMBANKMENT RENOVATION
BERKELEY COUNTY, SOUTH CAROLINA
WEST & UPPER TENANT - EMBANKMENT RENOVATION PLAN & SECTION VIEW

U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE

Designed	Yamin Mazdab	12/18/00
Drawn	Greg Bennett	12/18/00
Traced		
Checked		

Approved by:	
Title	
Date	

CAD FILE NO.
SHEET11.dwg
DRAWING NO.
SC-ENG-03-DC
SHEET NO. 11 of 22



Not to Scale

2003-12-123-C

CAD FILE NO. SHEET 12.dwg SC-ENG-03-001 SHEET NO. 12 of 22		DESIGNED <u>ycm</u> 02/05/2001 DRAWN <u>Greg Bennett</u> 02/05/2001 TRACED _____ CHECKED _____		APPROVED BY: _____ TITLE _____ DATE _____	
NAVAL WEAPONS STATION EMBANKMENT RENOVATION BERKELEY COUNTY, SOUTH CAROLINA DUTES - EMBANKMENT PLAN VIEW & PROFILE U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE					

DUTES POND

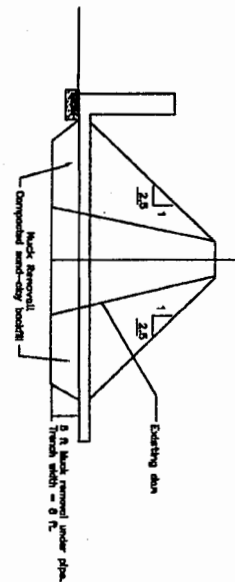
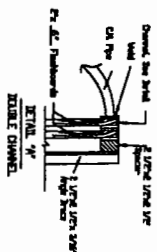
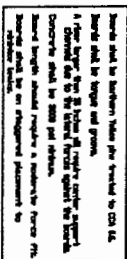
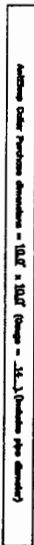
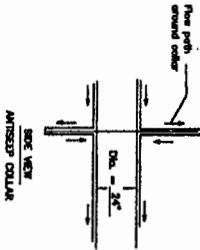
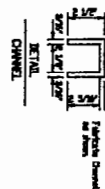
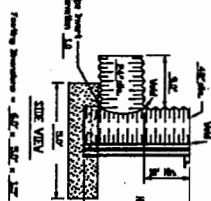
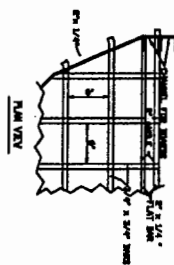
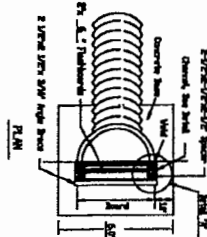
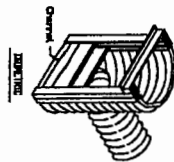
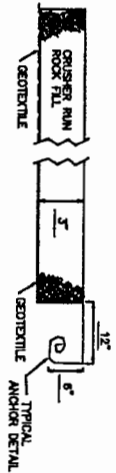
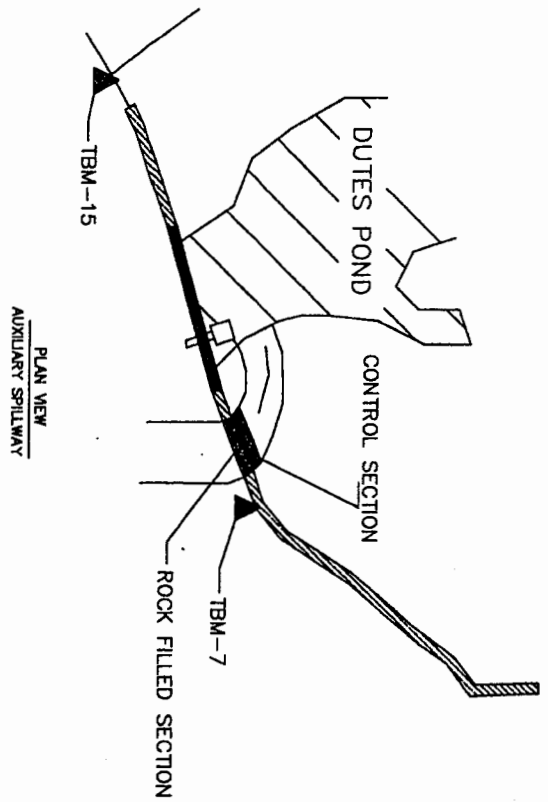


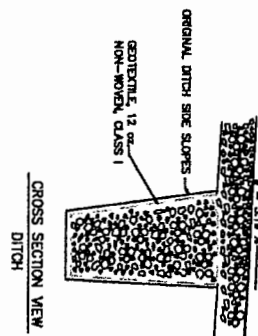
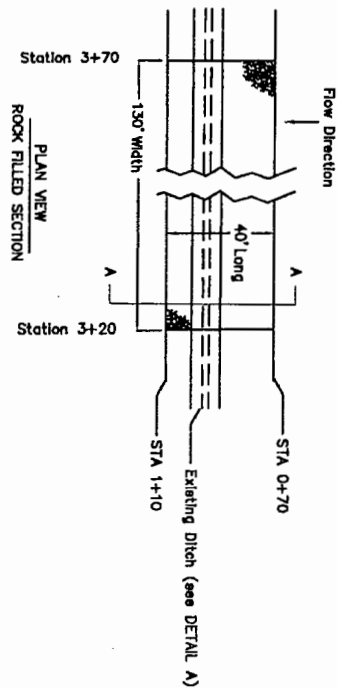
TABLE - 10 (DIRECTION AND ELEVATION)
1st road is due N then 24° true about
at junction of 2nd road and side of road.
ELEVATION = 12.80



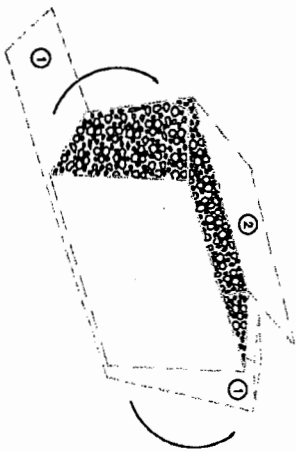
2003-12-123-C



NOTE: GEOTEKLE TO COME TO TOP OF ROCK FILL ON BOTH SIDES AND ENDS OF SPILLWAYS.



LAY GEOTEKLE INTO EXISTING DITCH FROM STA 3+30 TO 3+70 SO THAT THE 12' DITCH IS IN GOOD SOIL CONTACT WITH ALL SIDES OF THE DITCH. ACROSS TOP OF ROCK AND LOWER FLAP OF GEOTEKLE AS SHOWN.



ISOMETRIC VIEW - DETAIL A
LOOKING FROM STATION 1+10 TOWARDS 0+70

NAVAL WEAPONS STATION EMBANKMENT RENOVATION
BERKELEY COUNTY, SOUTH CAROLINA
DUTES - AUXILIARY SPILLWAY PLAN VIEW & PROFILE

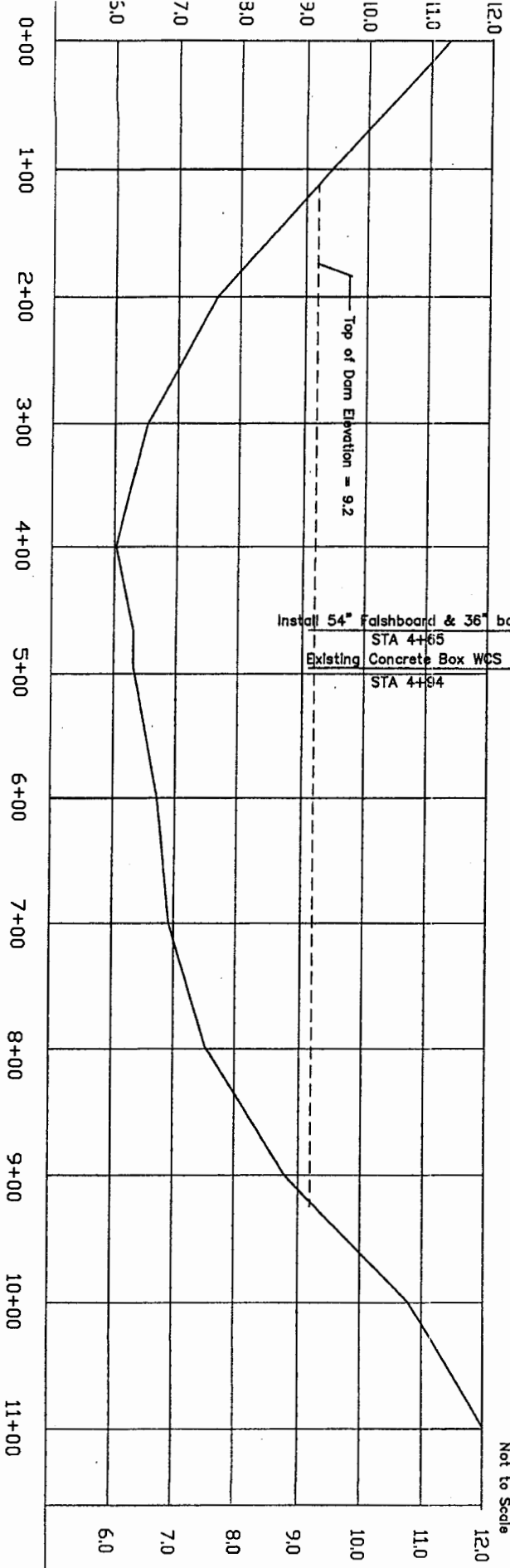
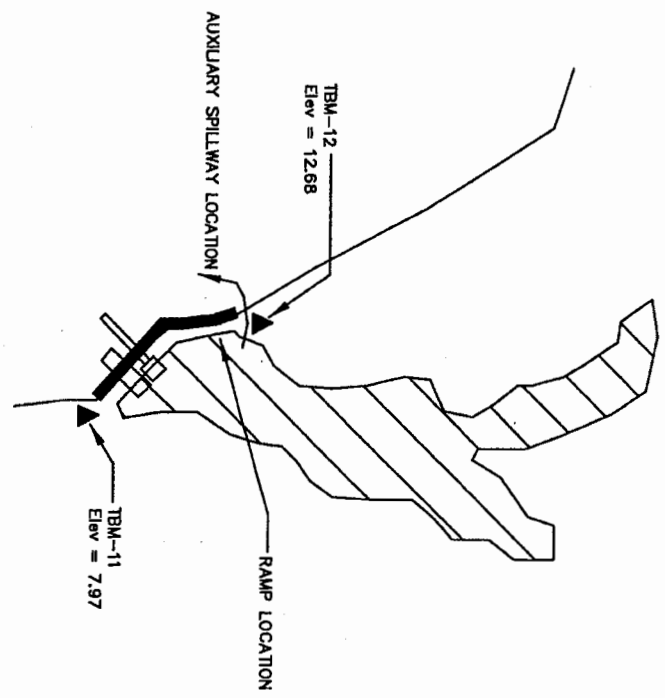
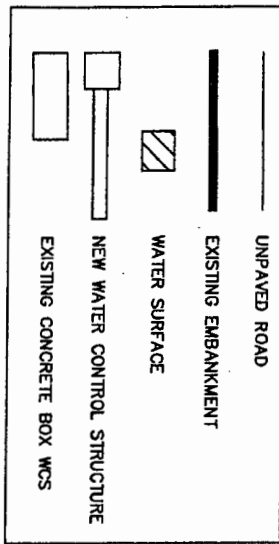
U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE

Designed yam 03/12/2001
Drawn Yasmin Mazdab 03/12/2001
Traced _____
Checked _____

Approved by: _____
Title _____
Date _____

CAD FILE NO. SHWTT4.dwg
DRAWING NO. 50-ENR-03-001
SHEET NO. 14 of 22

2003-12-123-C



2003-12-123-C

CAD FILE NO. SHEET 15 of 22 DRAWING NO. SC-ENG-03-001 SHEET NO. 15 of 22	NAVAL WEAPONS STATION EMBANKMENT RENOVATION BERKELEY COUNTY, SOUTH CAROLINA BROWNS - EMBANKMENT PLAN VIEW & PROFILE		Designed <u>yes</u> 07/15/2001	Approved by: _____
			Drawn <u>yes</u> 12/30/2002	Title _____
			Traced _____	Date _____
			Checked _____	
U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE				

FLASHBOARD RISER and BARREL PIPE

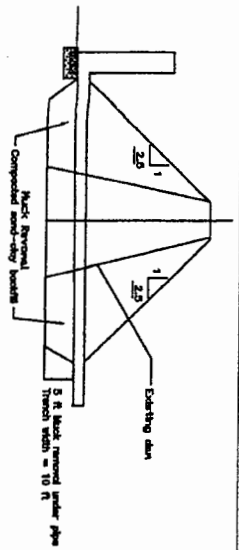
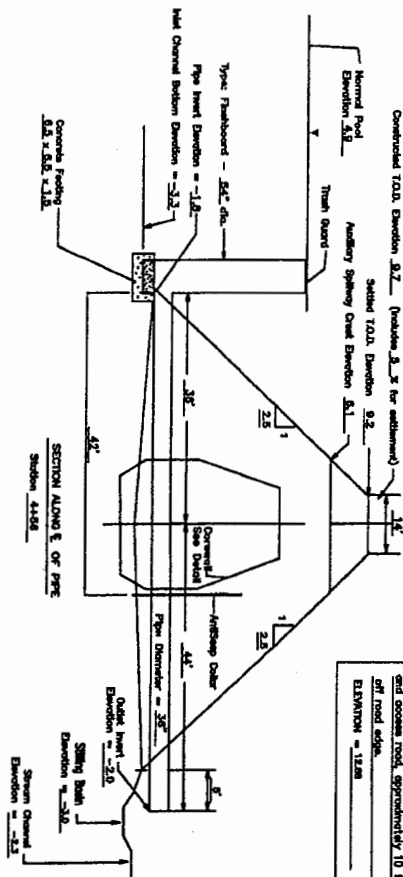


TABLE - 11 (PROPORTION and ELEVATION)

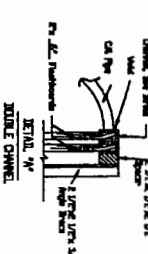
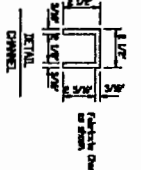
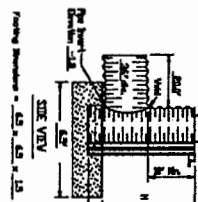
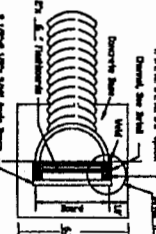
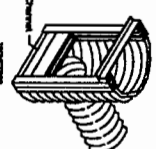
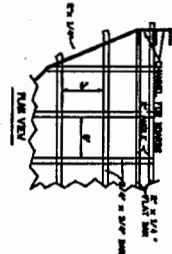
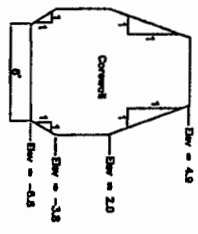
Head & riser to 2.0' high on downstream side of road and on left side of flow (also looking downstream). ELEVATION = 7.27

TABLE - 12 (PROPORTION and ELEVATION)

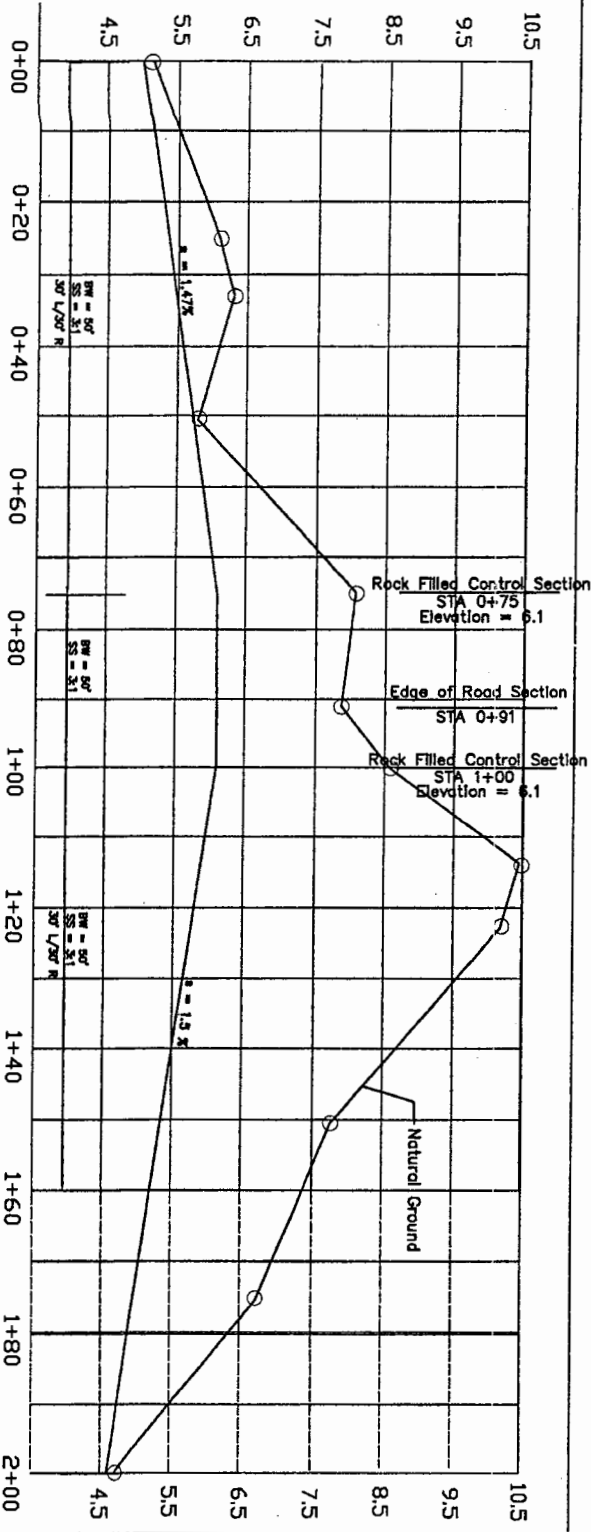
Head & riser to 2.0' high on left side of station 9+15 on upstream side of flow and across road approximately 110 ft. off road edge. ELEVATION = 13.08



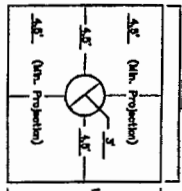
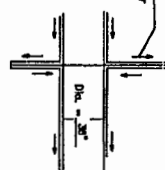
SECTION VIEW CORRELATION DETAIL



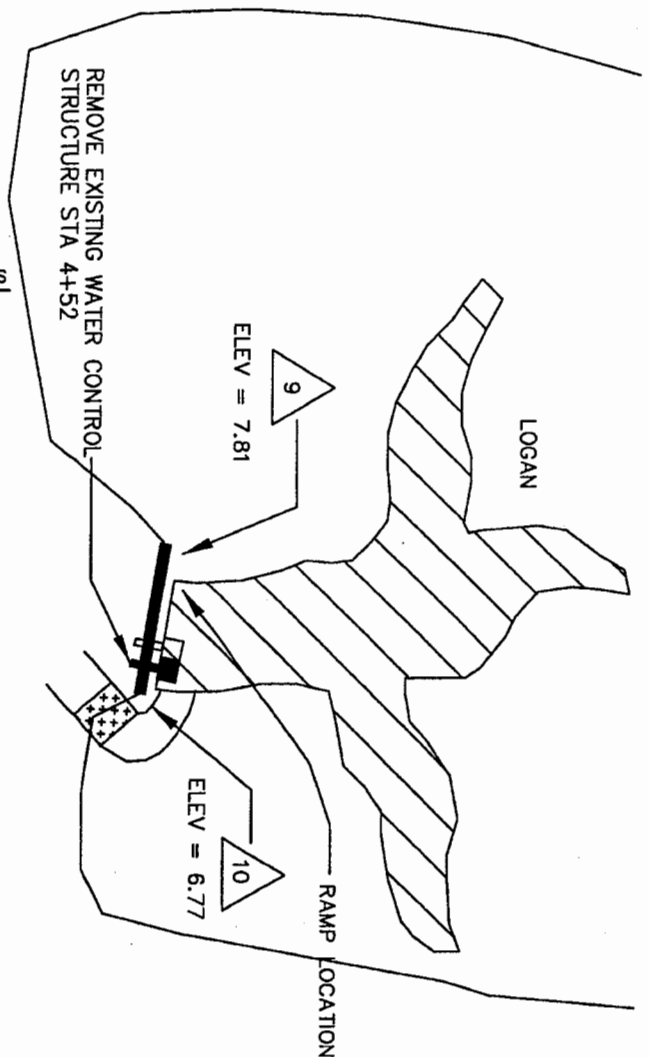
Barrel and its foundation shall be constructed by cast in place concrete and be subject to inspection. A 1/2" layer of 20 mesh wire shall be applied to the exterior surface of the barrel and its foundation. Barrel length shall be 200' per station. Barrel shall be on precast concrete foundation. Barrel shall be on precast concrete foundation.



Antiseep Cedar Foundation dimensions = 12.0' x 12.0' (Range = 12.0' x 12.0' (includes pipe diameter))

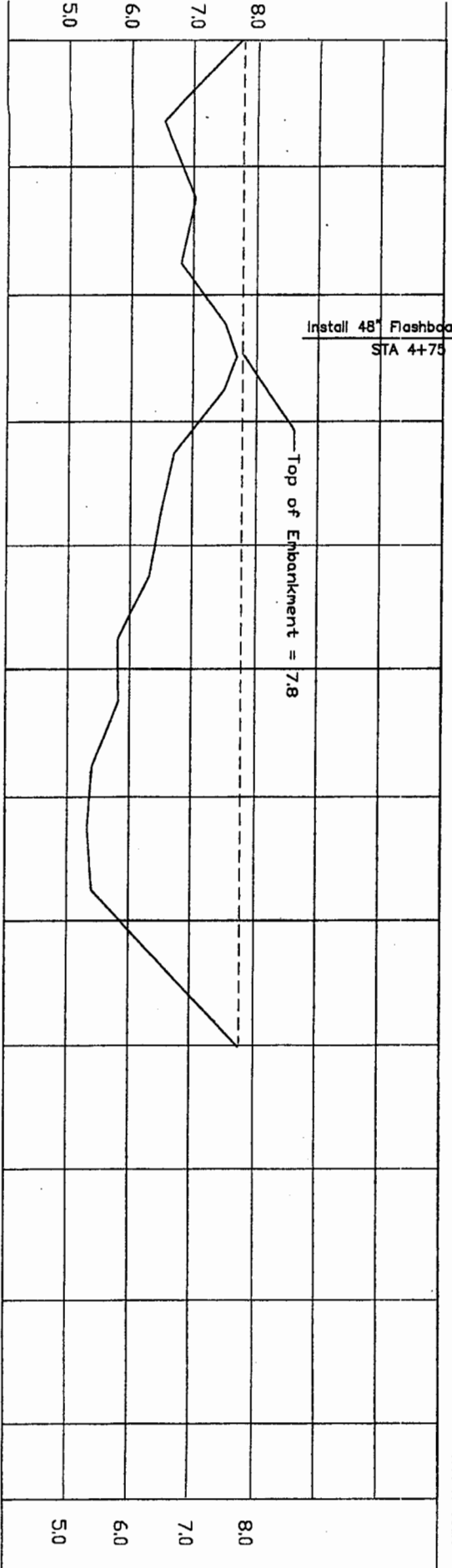


2003-12-123-C



LEGEND

	UNPAVED ROAD
	EXISTING EMBANKMENT
	WATER SURFACE
	CONTROL SECTION
	EXISTING WATER CONTROL STRUCTURE
	NEW WATER CONTROL STRUCTURE



Not to Scale

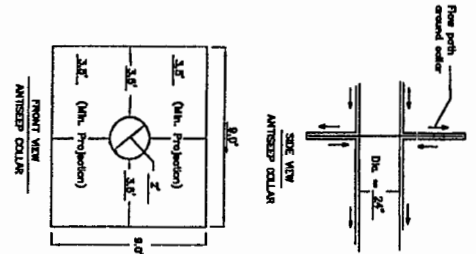
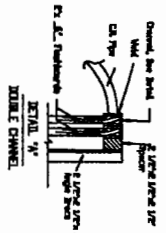
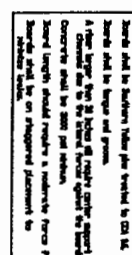
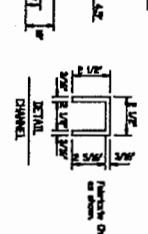
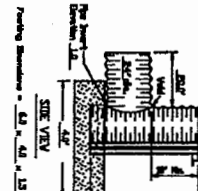
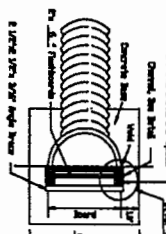
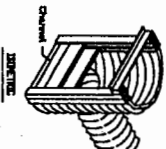
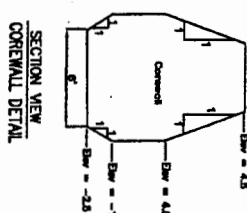
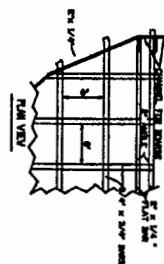
2003-12-123-C

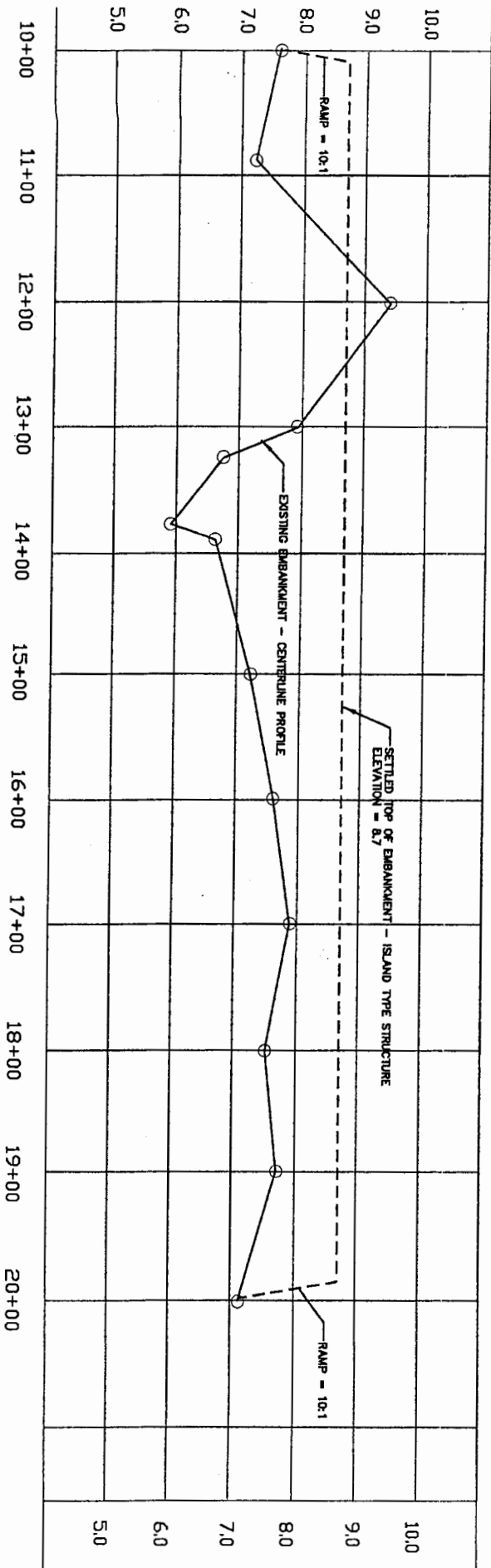
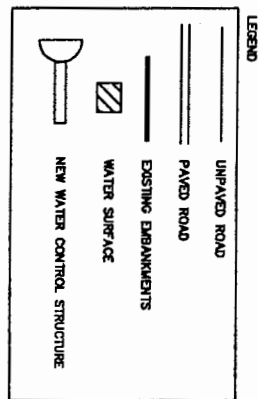
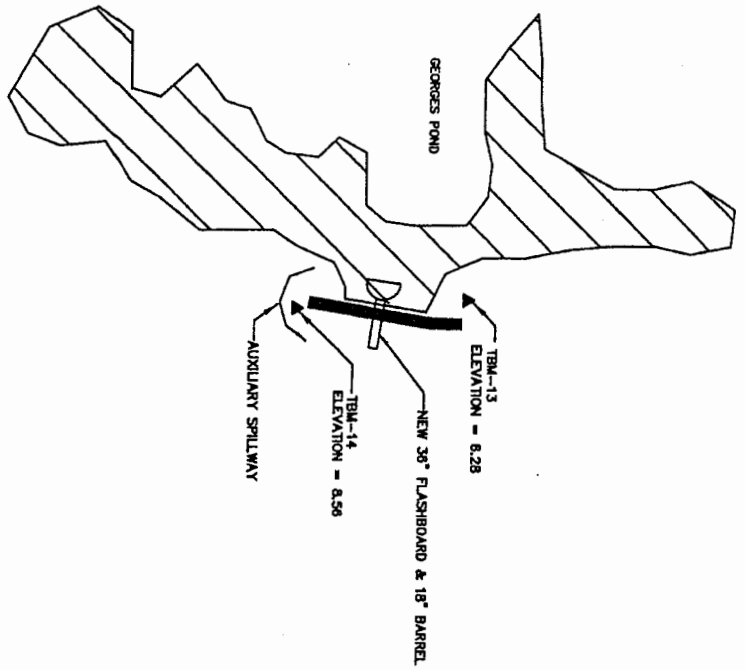
CAD FILE NO. SHEET 12.dwg DRAWING NO. SC-ENG-03-001 SHEET NO. 17 of 22	NAVAL WEAPONS STATION EMBANKMENT RENOVATION BERKELEY COUNTY, SOUTH CAROLINA LOGANS - EMBANKMENT PLAN VIEW & PROFILE		Designed <u>yc0</u> <u>12/30/2002</u> Drawn <u>ycm</u> <u>12/30/2001</u> Traced _____ Checked _____	Approved by: _____ Title _____ Date _____
	U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE			

Diagram illustrating the hull structure of a sailboat. The hull is 9 ft high and 8 ft wide. The deck is 2 ft thick. The hull is made of black-painted plywood. The deck is made of composite star-ry boards. The hull is supported by a keel beam. The hull is supported by a keel beam. The hull is supported by a keel beam.

TABLE - 10 (Continuation of Table 1)

Model & class in 20" pine on left side of office when looking downstream.





NAVAL WEAPONS STATION EMBANKMENT RENOVATION
BERKELEY COUNTY, SOUTH CAROLINA
GEORGES - EMBANKMENT PLAN VIEW & PROFILE

U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE

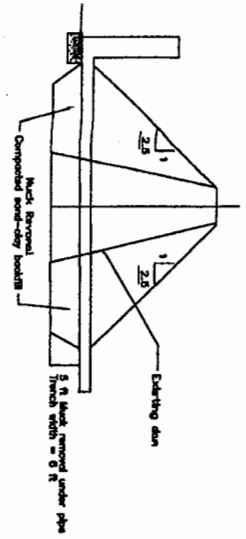
Designed ycm 03/12/2001
Drawn Yasmin Mazdab 03/12/2001
Traced _____
Checked _____

Approved by: _____
Title _____
Date _____

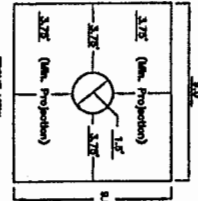
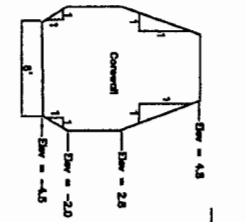
OLD FILE NO.
SHEET NO. 19 OF 22
DRAWING NO.
SC-BIO-03-001

2003-12-123-C

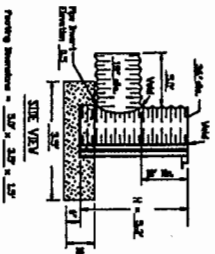
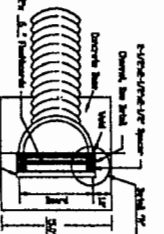
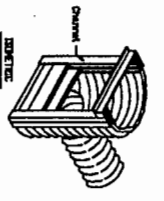
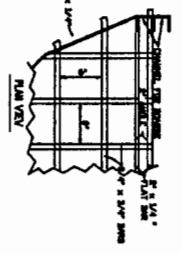
FLASHBOARD RISER and BARREL PIPE



SECTION VIEW
COREWALL DETAIL



FRONT VIEW
ANTISEEP COLLAR



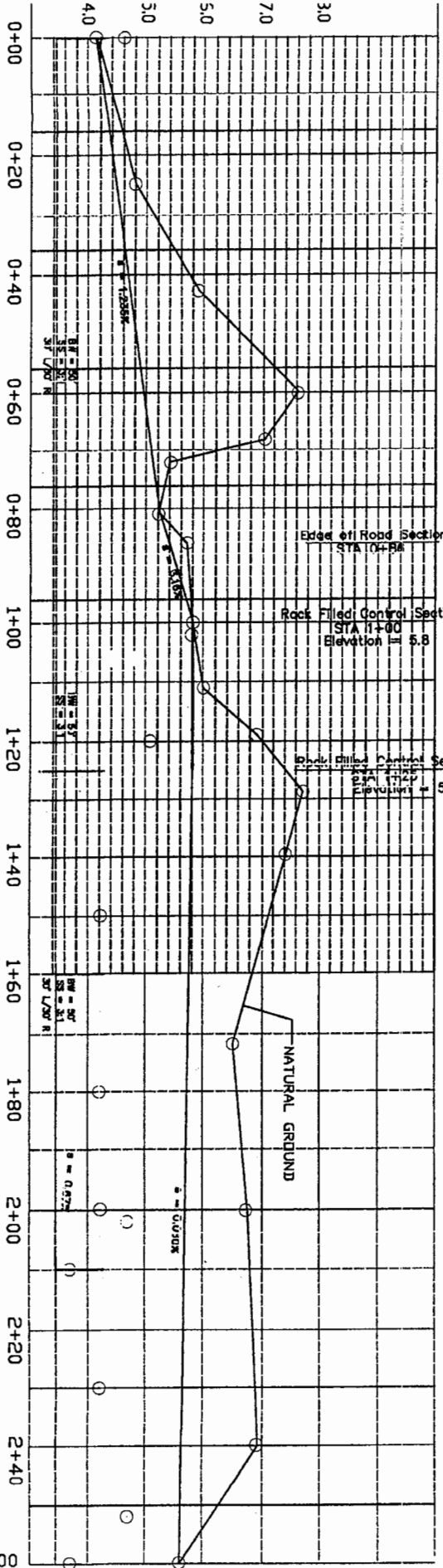
SIDE VIEW

TABLE - 13 (DESCRIPTION and ELEVATION)
Held in power pole on left side of
dam on left side with upstream side, lower
station 10+00.
ELEVATION = 4.50

TABLE - 14 (DESCRIPTION and ELEVATION)
Held in power pole on left side of
dam on left side with upstream side, lower
station 10+00.
ELEVATION = 4.50

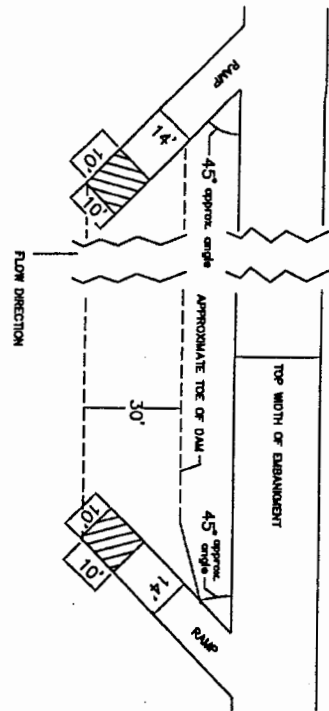
TABLE - 15 (DESCRIPTION and ELEVATION)
Held in power pole on left side of
dam on left side with upstream side, lower
station 10+00.
ELEVATION = 4.50

TABLE - 16 (DESCRIPTION and ELEVATION)
Held in power pole on left side of
dam on left side with upstream side, lower
station 10+00.
ELEVATION = 4.50



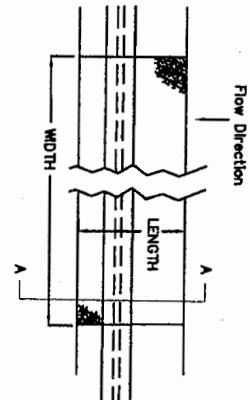
AUXILIARY SPILLWAY CENTERLINE PROFILE

2003-12-123-C Not to scale

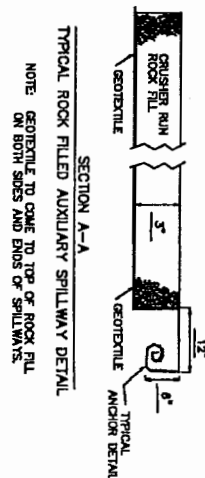


PLAN VIEW
TYPICAL PUMP RAMP DETAIL

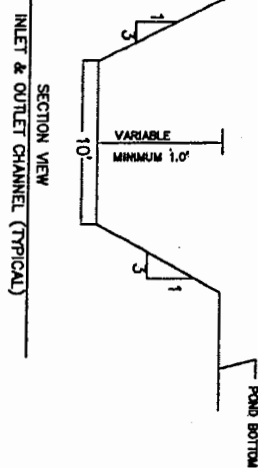
SEE INDIVIDUAL EMBANKMENT PLAN VIEW FOR SPECIFIC LOCATION OF RAMP.



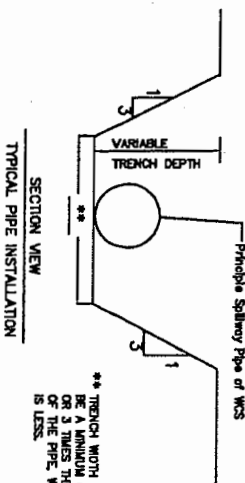
PLAN VIEW
ROCK FILLED SECTION AUXILIARY SPILLWAY
SEE INDIVIDUAL AUXILIARY SPILLWAY PROFILE FOR SPECIFIC DETAILS.



NOTE: GEOTEXTILE TO COME TO TOP OF ROCK FILL ON BOTH SIDES AND ENDS OF SPILLWAYS.

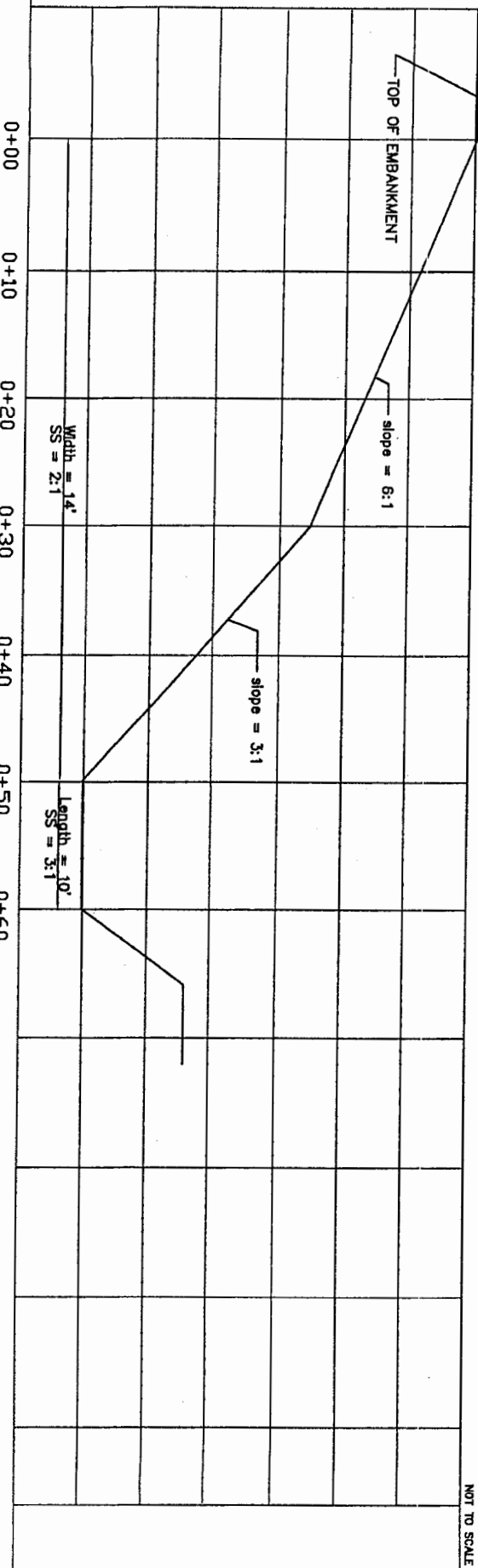


SECTION VIEW
INLET & OUTLET CHANNEL (TYPICAL)



SECTION VIEW
TYPICAL PIPE INSTALLATION

** TRENCH WIDTH SHALL BE A MINIMUM OF 4 FT OR 3 TIMES THE DIAMETER OF THE PIPE, WHICHEVER IS LESS.



NOT TO SCALE

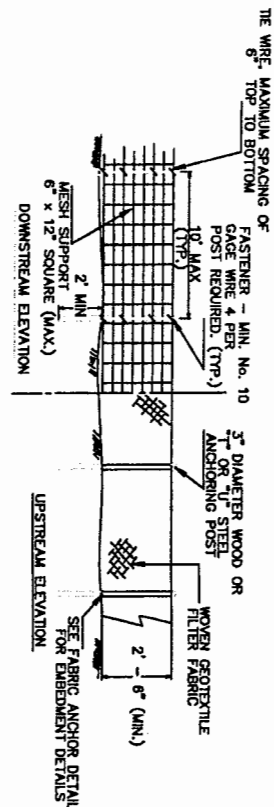
SLUMP PUMP RAMP - SECTION VIEW (TYPICAL)

2003-12-123-C

NAVAL WEAPONS STATION EMBANKMENT RENOVATION
BERKELEY COUNTY, SOUTH CAROLINA
SUMP PUMP & RAMP DETAILS - PLAN VIEW & PROFILE
U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE

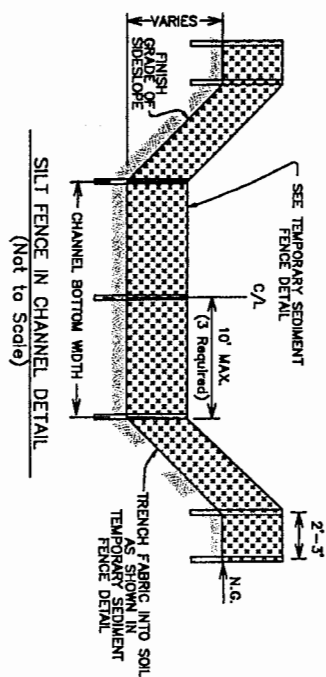
Designed YCM 12/21/00
Drawn Greg Bennett 12/21/00
Traced
Checked
Approved by:
Title
Date

CAD FILE NO.
SHEET 12.dwg
SC-DWG-03-001
SHEET NO. 21 of 22



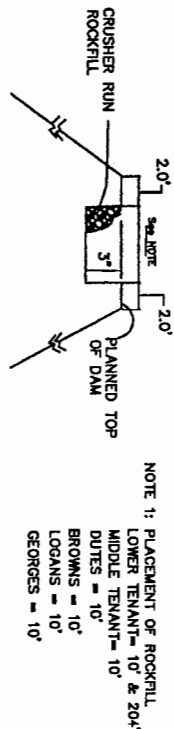
- NOTES:
1. TOP AND BOTTOM WIRES OF MESH SUPPORT SHALL BE GAGE NO. 10 (MIN.).
 2. INTERMEDIATE WIRES OF MESH SUPPORTS SHALL BE GAGE NO. 12 (MIN.).
 3. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA. THE FENCE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING.

DETAIL-TEMPORARY SEDIMENT FENCE
Not to Scale



SILT FENCE IN CHANNEL DETAIL
(Not to Scale)

SECTION VIEW
DETAILS OF ROCK PLACEMENT
ON EMBANKMENTS



NOT TO SCALE

SEDIMENT & EROSION CONTROL NOTES

1. All soil erosion and sediment control practices shall be installed prior to any major soil disturbances, or in their proper sequence, and maintained until permanent protection is established.
2. Unless otherwise directed by the contracting officer, no fencing shall be installed prior to excavation or placement of earthfill.
3. Additional control devices may be required during construction in order to control erosion and/or offsite sedimentation.
4. The contractor shall take necessary action to minimize the tracking of mud onto the paved roadway from construction areas.
5. The contractor shall inspect all erosion and water quality control structure installations for stability and operation after each rainfall, promptly remove excessive accumulations of sediment and repair or replace damaged installations. In the absence of rainfall, the control structures shall be inspected on a weekly basis.
6. All earthwork operations shall be performed in such a manner as to control erosion and prevent sedimentation from entering streams or being tracked onto roadways.
7. Approval of all erosion and sedimentation control devices shall be obtained prior to commencement of demolition, clearing and grading operations.
8. Permanent vegetation shall be seeded on all exposed areas within 14 days after final grading. Any disturbed areas that will be left exposed more than 21 days and not subject to construction traffic, shall be temporarily seeded within 14 calendar days of disturbance.
9. All sedimentation control devices shall be removed from site upon completion of grading and final acceptance of grading.
10. All work shall be done in accordance with the state standards for soil erosion and sediment control in South Carolina.
11. The South Carolina Department of Health and Environmental Control and shall be notified 72 hours in advance of any land disturbing activity. Lower Savannah EDC District Office (803) 641-7670.

CONSTRUCTION SEQUENCE OF EVENTS

THE FOLLOWING ITEMS SHALL BE EXECUTED IN THE GIVEN SEQUENCE:

1. Install all sediment and erosion control devices before earthwork is initiated.
 2. Clear site for channel, auxiliary spillway, and embankment work.
- THE SEQUENCE OF THE REMAINDER OF THE JOB IS NOT MANDATORY, BUT THE FOLLOWING ORDER IS SUGGESTED:
3. Auxiliary spillway and channel excavation
 4. Embankment earthfill
 5. Pipe installation
 6. Seeding - see Construction Specification 6 for details

2003-12-123-C

NAVAL WEAPONS STATION EMBANKMENT RENOVATION BERKELEY COUNTY, SOUTH CAROLINA SEDIMENT & EROSION CONTROL, GRAVEL PLACEMENT, & CONSTRUCTION NOTES		Designed: Yamin Mazzab Drawn: Randy Taylor, Greg Bennett Traced: _____ Checked: _____	1/11/01 1/11/01	Approved by: _____ Title: _____ Date: _____
U.S. DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE				

CADD FILE NO.
 DRAWING NO.
 SC-DB-03-001
 SHEET NO. 22 of 22